U.S. DEPARTMENT OF COMMERCE
National Technical Information Service

PB-297 801

Study of the Nature of Ozone, Oxides of Nitrogen, and Nonmethane Hydrocarbons in Tulsa, Oklahoma. Volume II. Data Tabulations

Research Triangle Inst., Research Triangle Park, NC

Prepared for

Environmental Protection Agency, Research Triangle Park, NC

Apr 79

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/4-79-008b
April 1979

Air

PB 297801

EPA

Study of the Nature of Ozone, Oxides of Nitrogen, and Nonmethane Hydrocarbons in Tulsa, Oklahoma

Volume II. Data Tabulation

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA-450/4-79-008b		PB297801

4. TITLE AND SUBTITLE	5. REPORT DATE
Study of the Nature of Ozone, Oxides of Nitrogen, and Nonmethane Hydrocarbons in Tulsa, Oklahoma, Volume II: Data Tabulation	6. PERFORMING ORGANIZATION CODE
7. AUTHOR(S) W. C. Eaton and F. E. Dimmock	8. PERFORMING ORGANIZATION REPORT NO.
9. PERFORMING ORGANIZATION NAME AND ADDRESS Research Triangle Institute, Research Triangle Park, NC 27709	10. PROGRAM ELEMENT NO.
	11. CONTRACT/GRANT NO.
12. SPONSORING AGENCY NAME AND ADDRESS Office of Air Quality Planning and Standards, U. S. Environmental Protection Agency, Research Triangle Park, NC 27711	13. TYPE OF REPORT AND PERIOD COVERED
	14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES
EPA
Project Officer: Norman C. Possiel, Jr.

16. ABSTRACT

This volume contains tabulated ambient air quality and meteorological data resulting from surface and airborne measurements made in Tulsa, Oklahoma during July, August and September 1977 under EPA Contract No. 68-02-2808, "Study of the Nature of Ozone, Oxides of Nitrogen and Non-Methane Hydrocarbons in Tulsa, Oklahoma." Also included are figures which illustrate the monitoring network and aircraft flight tracks followed during the airborne measurements program.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Ozone Oxides of Nitrogen Non-Methane Hydrocarbons Pollutant Transport		

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS (This Report)	21. NO. OF PAGES
Unlimited		479
	20. SECURITY CLASS (This page)	22. PRICE PC A21/MF A01

EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

EPA-450/4-79-008b

Study of the Nature of Ozone, Oxides of Nitrogen, and Nonmethane Hydrocarbons in Tulsa, Oklahoma

Volume II. Data Tabulation

by

W. C. Eaton
F. E. Dimmock

Research Triangle Institute
Research Triangle Park, N.C. 27709

Contract No. 68-02-2808

EPA Project Officer: Norman C. Possiel, Jr.

Prepared for

ENVIRONMENTAL PROTECTION AGENCY
Office of Air, Noise, and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, N.C. 27711

April 1979

This report was furnished to the Environmental Protection Agency by Research Triangle Institute, Research Triangle Park, North Carolina, in fulfillment of Contract No. 68-02-2808. The contents of this report are reproduced herein as received from Research Triangle Institute. The opinions, findings, and conclusions expressed are those of the author and not necessarily those of the Environmental Protection Agency. Mention of company or product names is not to be considered as an endorsement by the Environmental Protection Agency.

ABSTRACT

This volume contains tabulated ambient air quality and meteorological data resulting from surface and airborne measurements made in Tulsa, Oklahoma during July, August, and September, 1977 under EPA contract No. 68-02-2808, "Study of the Nature of Ozone, Oxides of Nitrogen, and Nonmethane Hydrocarbons in Tulsa, Oklahoma." Also included are figures which illustrate the monitoring network and aircraft flight tracks followed during the airborne measurements program.

CONTENTS

		Page
Abstract		iii
Figures		vii
Tables		xiii
1.0	INTRODUCTION	1
1.1	Project Summary	1
1.2	Project Reports	3
2.0	DESCRIPTION OF DATA TABULATION VOLUME	5
2.1	Surface Monitoring Network Data	5
2.2	Hydrocarbon Species Analyses	8
2.3	TENAX/GC/MS/COMP Organic Compound Analyses	10
2.4	Airborne Measurements	10
3.0	PERFORMANCE CHARACTERISTICS AND OPERATIONAL SUMMARY FOR INSTRUMENTS	13
3.1	Instrument Performance Characteristics	13
3.2	Operational Summaries for Instruments by Station	13
4.0	DATA TABULATION	21
4.1	Ozone Measurements from the 8-Site RTI Network	21
4.2	Ozone Measurements at the Tulsa City/County Health Department Sites	47
4.3	Nitric Oxide Measurements from the 8-Site RTI Network	55
4.4	Nitrogen Dioxide Measurements from the 8-Site RTI Network	81
4.5	Methane	107
4.6	Total Hydrocarbons	117
4.7	Nonmethane Hydrocarbons	127
4.8	Wind Speed	137
4.9	Wind Direction	151
4.10	Solar Radiation	165
4.11	Individual Hydrocarbon Species at Surface Sites	171
4.12	Individual Hydrocarbon Species from Airborne Samples	231
4.13	Results of Organic Compound Identification by TENAX/GC/Mass Spectrometry	243
4.14	Aircraft Flight Tracks and Pollutant/Meteorological Profiles	265

Preceding page blank

CONTENTS (continued)

	Page
4.15 Airborne Pollutant and Meteorological Data at 15-Second Intervals	357
4.16 Wind Direction and Speed Data from PIBAL Releases	487

FIGURES

Figure		Page
1.1	Map of the Tulsa region showing location of monitoring sites	2
4.1	GC/MS/COMP profile of volatile organics in ambient air from Liberty Mounds (LM1)	246
4.2	GC/MS/COMP profile of volatile organics in ambient air from Tulsa Post Office (DT1)	249
4.3	GC/MS/COMP profile of volatile organics in ambient air sample from Liberty Mounds (LM2)	252
4.4	GC/MS/COMP profile of volatile organics in ambient air from Liberty Mounds (duplicate sample of Figure 4.3)	253
4.5	GC/MS/COMP profile of volatile organics in ambient air from Post Office in downtown Tulsa, OK (DT2)	256
4.6	GC/MS/COMP profile of volatile organics in ambient air from Post Office in downtown Tulsa, OK (duplicate sample of Figure 4.5)	257
4.7	GC/MS/COMP profile of volatile organics in ambient air from Vera (V1)	261
4.8	GC/MS/COMP profile of volatile organics in ambient air sample from Vera (duplicate sample of Figure 4.7)	262
4.9	Example flight track, with call out numbers	267
4.10	Tulsa flight T03, August 25, 1977. AM transport pattern	270
4.11	Tulsa flight T03, August 25, 1977. Horizontal traverse, ozone concentration	271
4.12	Tulsa flight T03, August 25, 1977. Horizontal traverse, temperature and dewpoint	272
4.13	Tulsa flight T03, August 25, 1977. Horizontal traverse, b-scat	273
4.14	Tulsa flight T04, August 25, 1977. PM transport pattern	274
4.15	Tulsa flight T04, August 25, 1977. Horizontal traverse, ozone concentration	275
4.16	Tulsa flight T04, August 25, 1977. Horizontal traverse, temperature and dewpoint	276
4.17	Tulsa flight T04, August 15, 1977. Horizontal traverse, b-scat	277
4.18	Tulsa flight T05, August 26, 1977. AM transport pattern	278
4.19	Tulsa flight T05, August 26, 1977. Vertical spiral, Liberty Mounds	279
4.20	Tulsa flight T05, August 26, 1977. Horizontal traverse, ozone concentration	280

FIGURES (continued)

Figure		Page
4.21	Tulsa flight T05, August 26, 1977. Horizontal traverse, temperature and dewpoint	281
4.22	Tulsa flight T05, August 26, 1977. Horizontal traverse, b-scat	282
4.23	Tulsa flight T05, August 26, 1977. Vertical spiral, central business district	283
4.24	Tulsa flight T06, August 26, 1977. PM transport pattern	284
4.25	Tulsa flight T06, August 26, 1977. Horizontal traverse, ozone concentration	285
4.26	Tulsa flight T06, August 26, 1977. Horizontal traverse, temperature and dewpoint	286
4.27	Tulsa flight T06, August 26, 1977. Horizontal traverse, b-scat	287
4.28	Tulsa flight T06, August 26, 1977. Vertical spiral, Sperry	288
4.29	Tulsa flight T09, September 2, 1977. AM transport pattern	289
4.30	Tulsa flight T09, September 2, 1977. Vertical spiral, Liberty Mounds	290
4.31	Tulsa flight T09, September 2, 1977. Horizontal traverse, ozone concentration	291
4.32	Tulsa flight T09, September 2, 1977. Horizontal traverse, temperature and dewpoint	292
4.33	Tulsa flight T09, September 2, 1977. Horizontal traverse, b-scat	293
4.34	Tulsa flight T09, September 2, 1977. Horizontal traverse, condensation nuclei	294
4.35	Tulsa flight T09, September 2, 1977. Vertical spiral, central business district	295
4.36	Tulsa flight T10, September 2, 1977. PM transport pattern	296
4.37	Tulsa flight T10, September 2, 1977. Horizontal traverse, ozone concentration	297
4.38	Tulsa flight T10, September 2, 1977. Horizontal traverse, temperature and dewpoint	298
4.39	Tulsa flight T10, September 2, 1977. Horizontal traverse, b-scat	299
4.40	Tulsa flight T10, September 2, 1977. Horizontal traverse, condensation nuclei	300
4.41	Tulsa flight T10, September 2, 1977. Vertical spiral, Ramona	301
4.42	Tulsa flight T11, September 3, 1977. AM transport pattern	302
4.43	Tulsa flight T11, September 3, 1977. Vertical spiral, Liberty Mounds	303
4.44	Tulsa flight T11, September 3, 1977. Horizontal traverse, ozone concentration	304

FIGURES (continued)

Figure		Page
4.45	Tulsa flight T11, September 3, 1977. Horizontal traverse, temperature and dewpoint	305
4.46	Tulsa flight T11, September 3, 1977. Horizontal traverse, b-scat	306
4.47	Tulsa flight T11, September 3, 1977. Horizontal traverse, condensation nuclei	307
4.48	Tulsa flight T11, September 3, 1977. Vertical spiral, central business district	308
4.49	Tulsa flight T12, September 3, 1977. PM flight pattern	309
4.50	Tulsa flight T12, September 3, 1977. Horizontal traverse, ozone concentration	310
4.51	Tulsa flight T12, September 3, 1977. Horizontal traverse, temperature and dewpoint	311
4.52	Tulsa flight T12, September 3, 1977. Horizontal traverse, b-scat	312
4.53	Tulsa flight T12, September 3, 1977. Horizontal traverse, condensation nuclei	313
4.54	Tulsa flight T12, September 3, 1977. Vertical spiral, Ramona	314
4.55	Tulsa flight T14, September 8, 1977. AM stagnation pattern	315
4.56	Tulsa flight T14, September 8, 1977. Horizontal traverse, ozone concentration	316
4.57	Tulsa flight T14, September 8, 1977. Horizontal traverse, temperature and dewpoint	317
4.58	Tulsa flight T14, September 8, 1977. Horizontal traverse, b-scat	318
4.59	Tulsa flight T14, September 8, 1977. Horizontal traverse, condensation nuclei	319
4.60	Tulsa flight T15, September 9, 1977. PM transport pattern	320
4.61	Tulsa flight T15, September 9, 1977. Horizontal traverse, ozone concentration	321
4.62	Tulsa flight T15, September 9, 1977. Horizontal traverse, temperature and dewpoint	322
4.63	Tulsa flight T15, September 9, 1977. Horizontal traverse, b-scat	323
4.64	Tulsa flight T15, September 9, 1977. Horizontal traverse, condensation nuclei	324
4.65	Tulsa flight T15, September 9, 1977. Vertical spiral, Ramona	325
4.66	Tulsa flight T16, September 11, 1977. AM transport pattern	326
4.67	Tulsa flight T16, September 11, 1977. Vertical spiral, Liberty Mounds	327
4.68	Tulsa flight T16, September 11, 1977. Horizontal traverse, ozone concentration	328

FIGURES (continued)

Figure		Page
4.69	Tulsa flight T16, September 11, 1977. Horizontal traverse, temperature and dewpoint	329
4.70	Tulsa flight T16, September 11, 1977. Horizontal traverse, b-scat	330
4.71	Tulsa flight T16, September 11, 1977. Horizontal traverse, condensation nuclei	331
4.72	Tulsa flight T16, September 11, 1977. Vertical spiral, central business district	332
4.73	Tulsa flight T17, September 16, 1977. AM transport pattern	333
4.74	Tulsa flight T17, September 16, 1977. Vertical spiral, Liberty Mounds	334
4.75	Tulsa flight T17, September 16, 1977. Horizontal traverse, ozone concentration	335
4.76	Tulsa flight T17, September 16, 1977. Horizontal traverse, temperature and dewpoint	336
4.77	Tulsa flight T17, September 16, 1977. Horizontal traverse, b-scat	337
4.78	Tulsa flight T17, September 16, 1977. Horizontal traverse, condensation nuclei	338
4.79	Tulsa flight T18, September 16, 1978. PM transport pattern	339
4.80	Tulsa flight T18, September 16, 1978. Horizontal traverse, ozone concentration	340
4.81	Tulsa flight T18, September 16, 1978. Horizontal traverse, temperature and dewpoint	341
4.82	Tulsa flight T18, September 16, 1978. Horizontal traverse, b-scat	342
4.83	Tulsa flight T18, September 16, 1978. Horizontal traverse, condensation nuclei	343
4.84	Tulsa flight T18, September 16, 1978. Vertical spiral, Talala	344
4.85	Tulsa flight T19, September 17, 1977. AM transport pattern	345
4.86	Tulsa flight T19, September 17, 1977. Vertical spiral, Liberty Mounds	346
4.87	Tulsa flight T19, September 17, 1977. Horizontal traverse, ozone concentration	347
4.88	Tulsa flight T19, September 17, 1977. Horizontal traverse, temperature and dewpoint	348
4.89	Tulsa flight T19, September 17, 1977. Horizontal traverse, b-scat	349
4.90	Tulsa flight T19, September 17, 1977. Vertical spiral, central business district	350
4.91	Tulsa flight T20, September 17, 1977. PM transport pattern	351
4.92	Tulsa flight T20, September 17, 1977. Horizontal traverse, ozone concentration	352

FIGURES (continued)

Figure		Page
4.93	Tulsa flight T20, September 17, 1977. Horizontal traverse, temperature and dewpoint	353
4.94	Tulsa flight T20, September 17, 1977. Horizontal traverse, b-scat	354
4.95	Tulsa flight T20, September 17, 1977. Vertical spiral, Nowata	355

TABLES

Table		Page
2.1	Pollutant and meteorological parameters monitored at surface sites in Tulsa, OK, 1977	6
2.2	SAROAD parameters, concentration units, location of data	7
2.3	Hydrocarbon compounds identified by GC/FID	9
3.1	Instrument performance characteristics	14
3.2	Operational summary for instruments by station	15
3.3	Synopsis of invalidated or missing data in Tulsa ground monitoring network	16
3.4	Synopsis of missing data from hydrocarbon species samples collected in Tulsa, OK	19
4.1	Ambient air sampling protocol for GC/MS/COMP analysis of volatile organics	245
4.2	Volatile organic vapors in ambient air of Tulsa, OK (LM1)	247
4.3	Volatile organic vapors in ambient air of Tulsa, OK (DT1)	250
4.4	Volatile organic vapors in ambient air of Tulsa, OK (LM2)	254
4.5	Volatile organic vapors in ambient air of Tulsa, OK (DT2)	258
4.6	Volatile organic vapors in ambient air of Tulsa, OK (V1)	263
4.7	Flight track legend	268
4.8	Tulsa aircraft measurement data flights summary	269
4.9	PIBAL data taken in Tulsa by the National Weather Service	489

Preceding page blank

SECTION 1.0

INTRODUCTION

1.1 PROJECT SUMMARY

The field measurements portion of this project was conducted over the period July 1 to October 1, 1977, in and near Tulsa, Oklahoma.

Tulsa is a medium-size city (population 350,000) situated in a region that can be described as gently rolling pastureland. Due to the city's geographic isolation from other urban areas, Tulsa is an ideal location for a study of pollutant chemistry and transport. Analysis of the data is expected to provide a better understanding of the spatial distribution of ozone, oxides of nitrogen, and hydrocarbon species in and near a medium-sized city. The data base is also to be used in testing various ambient air models such as the Systems Applications Institute (SAI) urban airshed model.

An examination of the climatological records for the Tulsa area indicates that prevailing winds are from the southerly direction approximately 60 percent of the time during June, July, August, and September. The average wind speed during the same period is 9 mph. Since the objective of the program was, in part, to determine the transport of ozone into the city and the formation of ozone downwind, a network of eight stations oriented north-south was established. Figure 1.1 is a map of the region showing the locations and identifications of the eight RTI surface monitoring sites and the two sites operated by the Tulsa City/County Health Department. The data presented in this volume are also arranged in a south to north fashion. The order of surface site data presentation is:

1. Liberty Mounds = Rural Water District #6 Building
2. Post Office = 110 S. Elwood Street, Tulsa, Oklahoma
3. Health Department = 4616 E. 15th Street

Figure 1.1. Map of the Tulsa region showing location of monitoring sites

4. Sperry = National Guard Armory, Sperry
5. Skiatook Lake = off State Road 20, 8 miles
6. Vera = U.S. Post Office, Vera, Oklahoma
7. Wynona = Wynona Trailer Court
8. Ochelata = Route 1, Ochelata, Oklahoma
9. Apache = Apache Street, Tulsa, Oklahoma
10. Mohawk = Mohawk Boulevard, Tulsa, Oklahoma

Airborne data collection flights were conducted in the Tulsa area during the period August 25 through September 17, 1977. The purpose of the flights was to characterize the pollution content of the air entering the city in the morning and the air leaving the city in the afternoon. Vertical spirals, low passes, and crosswind horizontal traverses were components of the flights.

Analysis of both the surface and airborne data oftentimes shows the presence of a downwind ozone plume that has its chemical origin in the urban area. The plume is most frequently noted at the northern sites, Vera and Ochelata.

1.2 PROJECT REPORTS

This report is one of three reports concerned with the "Study of the Nature of Ozone, Nonmethane Hydrocarbons, and Oxides of Nitrogen in Tulsa, Oklahoma." This volume contains values for all hourly average air quality and meteorological measurements made at the surface sites; airborne data at 15-second intervals and diagrams of aircraft flight tracks; results of the qualitative analyses for organics by TENAX/GC/MS; and results of GC/FID analyses of individual hydrocarbons from samples taken in stainless steel containers.

Volume I is entitled "Project Description and Data Summaries" and contains the following sections: (1) Introduction, (2) Overview of Study, (3) Field Measurement Program, (4) Airborne Air Quality Measurements, (5) Quality Control and Quality Assurance Programs, (6) Data Summaries, and (7) References. Two appendixes are also included in Volume I: (A) Sampling and Analytical Methodology for GC-FID Identification of Hydrocarbons, and (B) Sampling and Analysis of Volatile Organic Compounds in Ambient Air by TENAX/GC/MS/COMP.

Volume III is entitled "Data Analysis and Interpretation" and includes detailed discussions of 14 case study days that relate surface and airborne pollutant concentrations to corresponding meteorological conditions and to the city's location. The contents of Volume III address the following areas: (1) spatial gradients and temporal patterns of pollutants at the surface and aloft, (2) mesoscale and synoptic trajectory analyses, (3) comparative analysis of airborne and surface measurements, (4) meteorological representativeness of the sampling period as compared to prior time periods, and (5) discussion of the hydrocarbon species data base.

SECTION 2.0

DESCRIPTION OF DATA TABULATION VOLUME

2.1 SURFACE MONITORING NETWORK DATA

Pollutant and meteorological parameters monitored at each of the eight RTI surface sites are listed in Table 2.1. Data for the chemical species ozone (O_3), nitric oxide (NO), nitrogen dioxide (NO_2), methane (CH_4), total hydrocarbons (THC), and nonmethane hydrocarbons (NMHC) are presented in Section 4.0 of this volume. Data for the meteorological parameters wind speed (WS), wind direction (WD), and solar radiation (SR) are also presented.

Each of these parameters is presented in SAROAD or AQ II format. These formats present 1-hr data listings in Central Standard Time. The SAROAD or AQ II format includes reports of daily means, hourly means for the month, number of hourly means per day, and number of values for each hour in the month. The first hour of the day is listed as "12 AM" and represents the average value from 0000 to 0100 CST. The next value is listed as "1 AM" and represents the hourly average from 0100-0200 CST. Table 2.2 lists the parameters reported in SAROAD or AQ II format, their corresponding units of measure, and the location of the data in the report.

Data are also presented for ozone measurements made at two Tulsa County stations. These are identified as the Apache Street and Mohawk Boulevard sites. The calibration system used to establish the ozone concentration at these two sites is based on the neutral-buffered potassium iodide procedure (NBKI). In contrast, all calibrations at the eight RTI ozone sites employed gas phase titration of NBS-traceable nitric oxide to establish the ozone concentration. Collaborative cross-calibration checks between the GPT and NBKI procedures have shown that differences of 15-30 percent are possible in the range of ambient ozone concentrations. Thus, direct comparison of ozone concentrations between the two systems can lead to a serious misinterpretation of the data.

Table 2.1. Pollutant and Meteorological Parameters Measured at Surface Sites in Tulsa, OK, 1977

SITE	O_3	NO	NO_2	NO_x	THC	CH_4	NMHC	WS	WD	SR
Liberty Mounds	X	X	X	X				X	X	
Post Office	X	X	X	X	X	X	X			
Health Department	X	X	X	X	X	X	X	X	X	
Sperry	X	X	X	X						
Skiatook Lake	X	X	X	X						
Vera	X	X	X	X						
Ochelata	X	X	X	X				X	X	
Wynona	X	X	X	X	X	X	X	X	X	
Mohawk Boulevard	X									
Apache Street	X									

Table 2.2. SAROAD Parameters, Concentration Units, Location of Data

Parameter	Units	Location of Data
Ozone (RTI sites)	ppm	Section 4.1
Ozone (Tulsa City/ County Sites)	ppm	Section 4.2
Nitric oxide	ppm	Section 4.3
Nitrogen dioxide	ppm	Section 4.4
Methane	ppmC (as methane)	Section 4.5
Total hydrocarbon	ppmC (as methane)	Section 4.6
Nonmethane hydrocarbon	ppmC (as methane)	Section 4.7
Wind speed	miles per hour	Section 4.8
Wind direction	degrees of compass[a]	Section 4.9
Solar radiation	Langleys	Section 4.10

(a) Zero degrees (0°) indicates "calm" period.

2.2 HYDROCARBON SPECIES ANALYSES

Results of the hydrocarbon species analyses by GC/FID for samples collected at the surface sites and aloft by the aircraft are presented in Sections 4.11 and 4.12. All concentrations are given in units of parts per billion of carbon (ppbC). A printed value of zero (0) indicates the concentration is below the measurement system's minimum detectable limit. A series of asterisks indicates the sample or component was invalidated (see Section 3.0 for explanations). All samples were taken and analyzed using the system and procedures described in Volume I of this report. Section 4.11 also contains qualifying statements that discuss qualitative and quantitative problems encountered during the hydrocarbon species analysis program.

Descriptions accompanying the hydrocarbon printouts include site identification, period of collection, hours, sample number, sample date, and the compound analyzed. In the case of aircraft samples, flight number and altitude are also listed.

All collection times are listed in Central Daylight Time (CDT), i.e., local time, with hours of the day numbered from 0 through 23. Surface samples were integrated over a 3-hr period, for example, 0600 to 0900 CDT. This time frame includes hours 0600-0700, 0700-0800, and 0800-0900 CDT.

The quantified compounds are arranged in three distinct groups. The first group begins with ethane and ends with n-pentane + cyclopentane; the second group begins with trans-2-pentene + isoprene and ends with n-dodecane; the third group begins with benzene and ends with n-butylbenzene. These three groups correspond to the three separate chromatographic columns that were employed for hydrocarbon analysis. The order in which the individual compounds are listed within each group corresponds to the order of the compounds' elution from the column.

At the bottom of the hydrocarbon report is a section of sums of ppbC values for alkenes (olefins), alkanes (paraffins), and aromatics. The species that comprise these classes of compounds are listed in Table 2.3. The summation of the concentrations of all compounds is also given.

Table 2.3. Hydrocarbon Compounds Identified by GC/FID

Alkane	Alkene
Ethane	Ethylene
Propane	Propylene
Isobutane	Trans-2-Pentene + Isoprene
n-Butane	1-Hexene
Isopentane	α-Pinene
	β-Pinene
n-Pentane + Cyclopentane	
2,2-Dimethylbutane	
2-Methylpentane	
3-Methylpentane	
n-Hexane	
2,4-Dimethylpentane	Aromatic
2-Methylhexane	Benzene
3-Methylhexane	Toluene
2,2,4-Trimethylpentane	Ethylbenzene
n-Heptane	p-Xylene
	m-Xylene
Methylcyclohexane	o-Xylene
2,3,4-Trimethylpentane	n-Propylbenzene
2-Methylheptane	m-Ethyltoluene
3-Methylheptane	1,3,5-Trimethylbenzene
n-Octane	t-Butylbenzene
n-Nonane	
n-Decane	o-Ethyltoluene
n-Undecane	1,2,4-Trimethylbenzene
n-Dodecane	1,2,3-Trimethylbenzene
	n-Butylbenzene
Alkyne	
Acetylene	

2.3 TENAX GC/MS/COMP ORGANIC COMPOUND ANALYSES

The ambient air sampling protocol and results obtained for the collection and analysis of volatile organics in ambient air in Tulsa, Oklahoma, and vicinity are given in Section 4.13. Figures 4.1 and 4.2 in Section 4.13 present the GC/MS/COMP profile of volatile organics observed for the 24-hr integrated samples at Liberty Mounds and at the Post Office site in downtown Tulsa, respectively. Tables 4.2 and 4.3 present the volatile organic vapors that were identified in these ambient air samples, respectively. It is apparent that over 100 compounds were detected and identified. The composition consisted of an assortment of alkanes, alkenes, alkyl aromatics, oxygenated compounds, halogenated hydrocarbons, and nitrogen-containing substances.

Figures 4.3 - 4.8 present the GC/MS/COMP profiles of the ambient air samples collected over the period 0600 to 0900 CDT at Liberty Mounds and the Post Office, and from 1400 to 1700 CDT in Vera, Oklahoma. Tables 4.4 - 4.6 present the identity of the volatile organic vapors in ambient air samples depicted by Figures 4.3, 4.5, and 4.7.

2.4 AIRBORNE MEASUREMENTS

Sections 4.14 and 4.15 of this volume present a complete set of processed data for the aircraft measurement flights conducted in the vicinity of Tulsa during the period August 25, 1977, through September 17, 1977. A computer printout of the data for each flight during this period (Section 4.15) is provided along with additional flight tracks and graphs of major parameters measured during the vertical spirals and horizontal traverses (Section 4.14). The computer printout includes each data point taken at 15-second intervals with the necessary calibration function and correction factors, such as for altitude, applied.

The flight tracks (see example flight track in Figure 4.9 of Section 4.14) accompanying each flight's data show the actual flight path and spiral locations relative to Tulsa and the surrounding area. Spirals and traverse legs are numbered chronologically and correspond to the computer printout data record numbers. Starting and stopping times (CST) are provided for the major legs and for the spirals. Aircraft altitudes (MSL) are given for each numbered leg and starting and stopping altitudes are shown for the spirals. The legend

shown in Table 4.7 describes the symbols and annotations used for the flight tracks. Where applicable, call-out numbers have been used to reference particular flight track features in the legend (see Figure 4.9, Example Flight Track, in Section 4.14).

Table 4.8 lists the date, time, and type of each flight. Data graphs of several major parameters are provided for each flight and appear in the data set after each flight track. The graphs are presented in chronological order and illustrate the vertical distribution of parameters measured during the spirals and single parameters measured during the horizontal traverses. The data plots for designated traverses are presented as a family of curves aligned in an east-west direction consistent with the actual flight path alignment. All data values plotted on the graphs are weighted running averages that were computed as follows:

$$\bar{X}_n = \frac{(X_{n-2}) + 3(X_{n-1}) + 5(X_n) + 3(X_{n+1}) + (X_{n+2})}{13}$$

where

n = data point being averaged,

$\bar{X}_n$ = weighted running average of n.

This generation of the plotted data was done to facilitate visual inspection of the data.

Section 4.16 contains a table of PIBAL soundings for wind speed and wind direction at various altitudes. These PIBAL soundings were made in Tulsa by the National Weather Service on the days airborne air quality measurements were made.

SECTION 3.0

PERFORMANCE CHARACTERISTICS AND OPERATIONAL SUMMARIES FOR INSTRUMENTS

3.1 INSTRUMENT PERFORMANCE CHARACTERISTICS

The minimum detectable concentrations, concentration ranges, and precision of the air quality monitoring instruments used in this study are summarized in Table 3.1.

3.2 OPERATIONAL SUMMARIES FOR INSTRUMENTS BY STATION

The operational status of instruments at each site is summarized in Table 3.2. For this program, operational time is divided into the following categories:

(1) Percent operational time, and

(2) Percent downtime.

Percent operational time includes all categories for operational status other than downtime, which includes routine maintenance, awaiting repair, or repair. The data presented in Table 3.2 include percent operational time (which is synonymous with percent valid data), and the percent downtime.

Table 3.3 is a synopsis of the reasons for missing data in the surface network data base. Explanations for missing or invalidated hydrocarbon species data are presented in Table 3.4.

Preceding page blank

Table 3.1. Instrument Performance Characteristics

Instrument	Parameter	Minimum detectable concentration ppm	Range ppm	Precision (% of indicated concentration)
Bendix Model 8002 Chemiluminescent Ozone Analyzer	O_3	0.002	0-0.2	±2
Bendix Model 8101-B Chemiluminescent NO-NO_x-NO_2 Analyzer	NO, NO_x, NO_2	0.005	0-0.5	±2
Beckman Model 6800 Air Quality Chromatograph	THC, CH_4, "NMHC"	~0.020	0-10.0	±10
Perkin-Elmer Model 900 Gas Chromatograph	Selected hydrocarbons	sub-ppb	ppb-ppm	±1

Table 3.2. Operational Summary for Instruments by Station

Site		Hours Down	Total Hours*	% Down/Off Line
Liberty Mounds:	Ozone	15	2143	0.7
	NO_x	9	2073	0.4
	WS	94	2076	4.5
	WD	94	2076	4.5
Tulsa Post Office:	Ozone	10	1900	0.5
	NO_x	62	1898	3.3
	HC	74	979	7.6
Health Department:	Ozone	123	1962	6.3
	NO_x	88	1980	4.4
	HC	114	1195	9.5
Sperry:	Ozone	56	2082	2.2
	NO_x	28	2040	1.4
Skiatook Lake:	Ozone	158	2124	7.4
	NO_x	353	1784	19.8
	WS†	831	1912	43.5
	WD†	1228	1886	65.1
	SR	12	2134	0.6
Vera:	Ozone	0	2143	0.0
	NO_x	63	1904	3.3
	WS†	40	1585	2.5
	WD†	55	1641	3.4
	SR†	290	1583	18.3
Wynona	Ozone	67	2101	3.2‡
	NO_x	24	2016	1.2
	HC	21	611	3.4
	WS	81	2088	3.9
	WD	81	2076	3.9
Ochelata:	Ozone	17	1995	0.9
	NO_x	0	1907	0.0
	WS	59	1799	3.3
	WD	57	2112	2.7

*Total hours excludes times of audits and calibrations.
†All wind speed and wind direction data from Vera and Skiatook Lake sites were invalidated during analysis phase of the project, due to questionable sensor exposure and orientation.
‡Time does not include 72 hours when there was no ozone analyzer present.

Table 3.3. Synopsis of Invalidated or Missing Data in Tulsa Ground Station Network

Site	Nature of problem	Date(s)	Time Lost
Mounds			
Ozone	rain filled sample manifold	September 5, 14 & 15	15 hours
NO_x	rain filled sample manifold	September 14 & 15	9 hours
WS	chart drive failure	August 6, 7, 8 & 9	80 hours
WD	batteries out	August 12	1/ hours
Post Office			
Ozone	faulty photomultiplier tube	July 15	10 hours
NO_x	electronic circuitry problem	July 28 & 29	12 hours
	excessive span drift	August 20 & 21	18 hours
	faulty photomultiplier tube	September 9 & 10	32 hours
HC	electronic circuitry problem	August 4 & 5	19 hours
		August 15, 16 & 17	55 hours
Health Department			
Ozone	faulty recorder	July 25 & 26	21 hours
	power failure	September 22	6 hours
	faulty photomultiplier tube	September 24	23 hours
	excessive span drift	July 10	10 hours
		August 16 & 17	24 hours
		September 22 & 23	48 hours
		September 25	23 hours
NO_x	faulty recorder	July 12 & 23	48 hours
		July 27	21 hours
	power failure	July 28	6 hours
	excessive span drift	July 28	13 hours
HC	electronic circuitry problems	August 22 & 23	12 hours
		September 12, 13, 14 & 15	92 hours
	faulty recorder	July 26 & 27	10 hours

(continued)

Table 3.3. (continued).

Site	Nature of problem	Date(s)	Time Lost
Sperry			
Ozone	faulty photomultiplier tube	July 15	19 hours
	electronic circuitry problem	September 10 & 11	10 hours
		September 14	17 hours
NO_x	faulty recorder	July 8	6 hours
	electronic circuitry problem	August 25	22 hours
Skiatook Lake			
Ozone	excessive span drift	July 5, 6, 7, 8 & 9	110 hours
	faulty pump	August 6	13 hours
	faulty photomultiplier tube	August 7 & 8	35 hours
NO_x	faulty recorder	July 8	11 hours
	faulty photomultiplier tube	September 2, 3, 4 & 5	98 hours
	excessive span drift	September 6	20 hours
	electronic circuitry problem	September 6 & 7	32 hours
	excessive zero drift	September 15-22	192 hours
WS	excessive span drift	July 4-24	480 hours
	power failure w/drift	August 23-31	
		September 1-10	351 hours
WD	excessive span drift + not calibrated	July 4-August 14	984 hours
	power failure & electronic circuitry problem	September 1-10	244 hours
SR	sensor check & maintenance	August 21	1 hour
		September 10	1 hour
	power failure	September 10	10 hours
Vera			
Ozone	no outages		
NO_x	faulty recorder	July 23 & 24	32 hours
		July 28	6 hours
	electronic circuitry problem	August 6 & 7	25 hours

(continued)

Table 3.3. (continued).

WS	electronic circuitry problem	July 27	19 hours
	power failure	August 10	16 hours
	maintenance & sensor check	September 22	5 hours
WD	power failure	August 10	16 hours
	maintenance & sensor check	September 22 & 23	5 hours
	electronic circuitry problem	July 26 & 27	34 hours
SR	excessive span drift	July 30	6 hours
	electronic circuitry problem & power failure	August 1-12	248 hours
	maintenance & sensor check	September 22	5 hours
	electronic circuitry problem	July 26 & 27	31 hours
Wynona			
Ozone	excessive span drift & not calibrated	July 4, 5, & 6	67 hours
NO_x	faulty pump	August 3 & 4	24 hours
WS	chart drive failure	July 7 & 8	43 hours
WD	improper time synchronization	July 16, 17 & 18	38 hours
HC	electronic circuitry problem	September 18	13 hours
	electronic circuitry problem & not calibrated	August 28	8 hours
Ochelata			
Ozone	faulty recorder	August 2 & 3	17 hours
NO_x	no outages		
WS	chart drive failure	August 6 & 7	41 hours
WD	batteries out	August 12	18 hours

Table 3.4. Synopsis of missing data from hydrocarbon species samples collected in Tulsa, OK

Site	Sample Number	Date	Nature of Problem
Liberty Mounds	1010	7/24	Insufficient flow rate through system
Liberty Mounds	1011	7/25	Insufficient flow rate through system
Liberty Mounds	1012	7/26	Insufficient flow rate through system
Liberty Mounds	1013	7/27	Insufficient flow rate through system
Liberty Mounds	1014	7/28	Insufficient flow rate through system
Liberty Mounds	1015	7/29	Insufficient flow rate through system
Liberty Mounds	1018	8/1	Insufficient flow rate through system
Liberty Mounds	1023	8/6	Insufficient flow rate through system
Liberty Mounds	1033	8/16	No analysis of 3rd column (not enough sample)
Liberty Mounds	1055	9/4	Stainless steel fitting of sample pump broke
Tulsa City/County Health Dept.	2056	9/4	Sample line was disconnected from glass manifold
Tulsa Central Business District	9005	8/26	No analysis of 2nd column (sample lost)

SECTION 4.0

DATA TABULATION

SECTION 4.1

OZONE MEASUREMENTS FROM THE 8-SITE RTI NETWORK
(Gas Phase Titration Calibration)

Preceding page blank

preceding page blank

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999405)

1-HOUR DATA LISTING

JUL 1977

DAY	AM												PM										DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.022	.025	.025	.030	.030	.027	.025	.025	.025	.025	.025	.032	.037	.045	.045	.045	.045	.037	.037	.027	.022	.022	.025	.025	.030	24
2	.025	.025	.022	.020	.014	.017	.020	.022	.027	.032	.035	.037	.040	.043	.043	.043		.050	.045	.035	.032	.032	.032	.035	.032	23
3	.035	.032	.030	.030	.027	.025	.025	.027	.032	.037	.045	.043	.040	.040	.043	.045	.045	.045	.043	.037	.037	.043	.037	.032	.034	24
4	.032	.032	.030	.025	.022	.022	.025	.030	.035	.043	.048	.055	.055	.055	.053	.055	.058	.060	.058	.043	.030	.032	.032	.040	.040	24
5	.035	.035	.035	.035	.025	.020	.025	.037	.050		.068	.073	.071	.068	.066	.064	.068	.068	.066	.053	.043	.040	.037	.035	.049	23
6	.037	.035	.030	.027	.035	.032	.035	.040	.048	.050	.058	.066	.068	.073	.073	.068	.068	.073	.073	.060	.048	.050	.043	.053	.053	24
7	.037	.037	.043	.045	.045	.037	.035	.035	.043	.048		.058	.058	.058	.058	.060	.058	.058	.055	.045	.037	.025	.017	.030	.044	23
8	.025	.027	.030	.032	.030	.025	.032	.035	.043	.050	.058	.071	.076	.083	.089	.089	.076	.058	.053	.050	.045	.045	.040	.037	.050	24
9	.053	.060	.045	.040	.032	.032	.037	.045	.055	.058	.063	.063	.066	.068	.066	.055	.045	.040	.043	.043	.037	.032	.025	.020	.046	24
10	.012	.009	.009		.012	.009	.022	.035	.043	.048	.055	.058	.060	.063	.063	.058	.055	.055	.053	.043	.037	.035	.032	.035	.039	23
11	.040	.037	.035		.025	.022	.020	.025	.030	.037	.043	.045	.045	.043	.045	.050	.058	.067	.073	.073	.063	.045	.032	.030	.043	23
12	.032	.032	.027	.025	.022	.022	.020	.022	.030	.037	.045	.053	.058	.058	.050	.048		.048	.048	.040	.037	.043	.050	.053	.039	23
13	.048	.040	.030	.022	.017					.037	.043	.050	.048	.048	.043	.040	.037	.037	.037	.030	.009	.012	.017	.020	.033	20
14	.022	.012	.017	.012	.014	.022	.020	.027		.050	.053	.053	.058	.055	.063	.068	.070	.068	.063	.060	.053	.043	.037	.032	.042	23
15	.027	.020	.017	.014	.014	.022	.035	.050	.058	.063	.070	.073	.076	.076	.083	.084	.086	.086	.076	.060	.053	.058	.058	.050	.055	24
16	.045	.043	.043	.038		.030	.038	.047	.060	.073	.081	.081	.081	.081	.081	.078	.078	.074	.071	.066	.058	.053	.050	.047	.061	23
17	.043	.032	.030	.025		.035	.040	.048	.058	.066	.073	.070	.068	.070	.070	.068	.066	.066	.060	.043	.037	.030	.030	.027	.060	23
18	.027	.027	.035	.037		.040	.043	.048	.055	.058	.058	.058	.060	.058	.058	.060	.058	.060	.058	.043	.043	.035	.027	.025	.047	23
19	.027	.035	.048	.040		.030	.037	.045	.055	.070	.081	.076	.069	.070	.070	.070	.070	.070	.070	.066	.060	.055	.050	.045	.057	23
20	.045	.043	.037	.037	.027	.025	.030	.035	.048	.058	.060	.063	.066	.060	.058	.053	.053	.050	.050	.048	.045	.040	.037	.037	.046	24
21	.037	.035	.030	.027	.025	.017	.020	.027		.048	.045	.045	.053	.058	.058	.068	.068	.058	.048	.040	.037	.035	.025	.022	.040	23
22	.017	.017	.009	.007	.004	.002	.012	.037	.048	.058	.073	.073	.078	.081	.081	.078	.030	.012	.009	.007	.007	.004	.004	.004	.031	24
23	.004	.004	.004	.004	.000	.000	.012	.027	.043	.053	.066	.070	.073	.076	.076	.078	.066	.063	.060	.048	.045	.048	.048	.045	.042	24
24	.035	.032	.025	.022	.017	.014	.017	.027	.040	.053	.068	.070	.063	.060	.060	.063	.063	.058	.066	.060	.055	.050	.048	.048	.046	24
25	.053	.053	.050	.048	.045	.043	.043	.045	.055	.068	.083	.089	.086	.073	.070	.068	.070	.055	.050	.053	.073	.070	.060	.050	.061	24
26	.040	.035	.035	.035		.032	.035	.037	.043	.045	.048	.053	.058	.060	.063	.068	.070	.064	.060	.055	.043	.035	.032	.030	.047	23
27	.017	.009	.009	.004		.007	.004	.007	.007	.007	.007	.027	.037	.037	.037	.035	.040	.043	.037	.032	.027	.030	.032	.032	.023	23
28	.027	.032	.030	.027		.025	.022	.022	.025	.032	.040	.045	.050	.055	.058	.058	.060	.055	.045	.030	.032	.027	.022	.040	.037	23
29	.037	.027	.020	.018	.014	.012	.022	.032	.045	.058	.066	.070	.081	.084	.086	.084	.124	.127	.117	.091	.060	.048	.044	.039	.059	24
30	.035	.033	.032	.031	.032	.027	.025	.033	.043	.049	.053	.058	.060	.062	.063	.068	.069	.068	.058			.063	.070	.069	.050	22
31	.048	.068	.060	.058	.053	.040	.040	.041	.042	.045			.076	.086	.087	.091	.087	.060	.058	.045	.051	.050	.050	.032	.058	22
AVG	.034	.031	.030	.028	.024	.024	.027	.034	.042	.048	.056	.059	.062	.063	.063	.063	.063	.059	.054	.048	.042	.040	.038	.036	.045	
NO.	31	31	31	29	24	30	30	30	28	30	29	30	31	31	31	31	29	31	31	30	30	31	31	31		721
MAX	.048	.068	.060	.058	.053	.043	.043	.050	.060	.073	.083	.089	.086	.086	.089	.091	.124	.127	.117	.091	.073	.070	.070	.069	.127	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A05)

AUG 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	.023	.021	.012	.004					.018	.034	.050	.060	.065	.067	.066	.064	.063	.061	.053	.040	.037	.035	.035	.032	.042	20
2	.034	.032	.025	.019		.021	.018	.030	.040	.056	.071	.071	.074	.082	.083	.083	.102	.104	.117	.100	.085	.065	.056	.035	.061	23
3	.032	.037	.039	.040		.019	.019	.040	.055	.068	.086	.090	.103	.092	.098	.089	.080	.082	.073	.063	.059	.054	.061	.061	.063	23
4	.062	.066	.068	.064		.050	.051	.047	.052	.067	.073	.079	.077	.081	.083	.084	.086	.080	.085	.081	.076	.074	.078	.081	.072	23
5	.070	.072	.068	.064		.051	.046	.050	.062	.072	.093	.104	.105	.104	.102	.092	.085	.085	.080	.077	.074	.075	.076	.073	.078	23
6	.064	.061	.058	.053		.041	.040	.038	.041	.047	.054	.057	.057	.060	.061	.061	.063	.064	.064	.069	.056	.051	.054	.057	.055	23
7	.059	.058	.053	.047	.044	.040	.042	.044	.052	.060	.066	.069	.074	.069	.061	.063	.062	.065	.069	.057	.047	.042	.046	.047	.056	24
8	.048	.047	.046	.041		.036	.035	.044	.056	.064	.080	.082	.078	.071	.069	.071	.071	.081	.076	.061	.050	.051	.054	.053	.059	23
9	.054	.055	.056	.051	.046	.043	.038	.043	.052	.061	.069	.069	.068	.065	.066	.068	.070	.068	.060	.051	.056	.044	.045	.042	.054	24
10	.041	.037	.040	.040		.023	.023	.041	.056	.070	.074	.080	.081	.071	.065	.066	.070	.065	.061	.056	.050	.047	.041	.043	.054	23
11	.051	.040	.035	.029		.031	.035	.037	.047	.045	.059	.062	.062	.085	.087	.095	.076	.052	.025	.031	.030	.027	.025	.024	.047	23
12	.023	.022	.017	.018		.018	.013	.011	.013	.017	.027	.042	.059	.086	.108	.114	.092	.102	.113	.081	.065	.056	.056	.053	.055	23
13	.045	.021	.016	.008		.027	.025	.032	.042	.059	.066	.055	.041	.046	.044	.050	.045	.049	.047	.041	.039	.034	.040	.036	.040	23
14	.030	.026	.025	.021	.016	.016	.018	.019	.030	.044	.060	.074	.081	.093	.094	.090	.089	.082	.077	.071	.059	.056	.054	.051	.053	24
15	.054	.051	.039	.029	.024		.016	.020	.036	.048	.053	.061	.066	.067	.066	.065	.064	.066	.065	.059	.049	.046	.043	.030	.049	23
16	.025	.021	.021	.022		.018	.015	.020	.027	.037	.048	.058	.060	.065	.066	.067	.068	.059	.055	.041	.035	.026	.024	.021	.039	23
17	.021	.019	.022	.025		.023	.022	.027	.031	.034	.041	.046	.025	.019	.028	.034	.044	.045	.049	.044	.033	.028	.024	.020	.030	23
18	.018	.016	.020	.018		.017	.016	.018	.031	.062	.083	.087	.084	.086	.079	.077	.073	.073	.065	.059	.052	.048	.041	.038	.050	23
19	.033	.032	.026	.030		.036	.034	.034	.037	.041	.041	.045	.058	.066	.070	.072	.073	.068	.065	.054	.050	.042	.046	.044	.048	23
20	.040	.041	.038	.039		.031	.024	.025	.029	.028	.028	.049	.063	.069	.071	.072	.075	.070	.067	.055	.047	.040	.040	.046	.047	23
21	.042	.040	.027	.020	.005	.010	.011	.012	.026	.045	.057	.061	.063	.069	.074	.085	.089	.092	.100	.076	.057	.056	.045	.036	.050	24
22	.011	.009	.010	.011		.001	.001	.016	.051	.047	.082	.082	.084	.076	.071	.065	.063	.044	.041	.054	.046	.031	.027	.034	.044	23
23	.027	.028	.046	.052		.039	.039	.040	.041	.047	.061	.069	.070	.074	.071	.075	.071	.069	.041	.051	.038	.039	.037	.034	.051	23
24	.020	.026	.019	.019	.017	.025	.026	.026	.036	.051	.062	.075	.080	.078	.083	.084	.080	.079	.074	.061	.055	.045	.030	.016	.049	24
25	.014	.026	.032	.027		.033	.035	.041	.051	.056	.061	.066	.065	.064	.061	.062	.066	.070	.068	.061	.062	.063	.064	.061	.053	23
26	.043	.040	.057	.054	.050	.044	.039	.034	.040	.046	.049	.055	.056	.060	.062	.067	.067	.063	.053	.044	.040	.041	.044	.043	.051	24
27	.044	.047	.041	.037		.029	.025	.023	.028	.032	.039	.042	.042	.042	.044	.044	.048	.044	.047	.050	.048	.044	.039	.036	.040	23
28	.032	.029	.024	.022	.022	.021	.021	.021	.023	.026	.027			.022	.032	.041	.039	.035	.035	.032	.029	.023	.024	.020	.027	22
29	.024	.024	.023	.021		.014	.010	.006	.004	.007	.016	.029	.044	.055	.060	.059	.061	.059	.051	.036	.034	.055	.023	.022	.032	23
30	.027	.023	.023	.021		.013	.013	.040	.025	.039	.046	.044	.042	.047	.051	.052	.051	.049	.044	.033	.032	.034	.029	.025	.035	23
31	.032	.029	.022	.021	.026	.027	.028	.030	.036	.041	.041	.043	.045	.046	.049	.047	.049	.049	.045	.040	.037	.032	.027	.019	.036	24
AVG	.038	.036	.034	.031	.028	.027	.028	.031	.038	.047	.057	.064	.066	.067	.068	.070	.069	.068	.065	.056	.049	.045	.043	.040	.049	
NO.	31	31	31	31	9	29	30	30	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31		716
MAX	.070	.072	.068	.064	.050	.051	.073	.050	.062	.072	.093	.104	.105	.104	.108	.114	.102	.104	.117	.100	.085	.075	.078	.081	.117	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A051

1-HOUR DATA LISTING

SEP 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.021	.028	.025	.021	.016	.014	.015	.017	.029	.045	.054	.059	.057	.054	.050		.041	.038	.030	.023	.019	.020	.024	.022	.031	23
2	.020	.020	.019	.017	.014	.008	.008	.015	.034	.049	.054	.056	.051	.046	.047	.049	.050	.050	.043	.034	.038	.040	.033	.031	.034	24
3	.017	.027	.015	.033	.034	.000	.003	.013	.034	.055	.063	.062	.065	.065	.062	.061	.062	.061	.057	.051	.051	.050	.047	.047	.043	24
4	.044	.039	.035	.034	.037		.026	.038	.063	.075	.079	.080	.076	.075	.074	.069	.066	.065	.058	.050	.037	.029	.027	.023	.052	23
5							.044	.045	.038	.035	.037	.043	.049	.046	.045	.044	.044	.039	.036	.037	.028	.018	.017	.017	.037	18
6	.012	.013	.013	.008	.005	.005	.004	.007	.022	.036	.048	.056	.062	.073	.081	.080	.076	.073	.059	.044	.037	.031	.028	.025	.037	24
7	.019	.017	.016	.015	.011	.007	.002	.014	.023	.032	.048	.055	.059	.058	.063	.065	.063	.064					.026	.013	.033	20
8	.015	.007	.006	.021	.006	.000	.000	.002	.017	.042	.058	.061	.052	.051	.048	.047	.047	.044	.040	.043	.046	.038	.029	.033	.031	24
9	.030	.025	.022	.018	.007		.005	.013	.028	.039	.049	.052	.052	.056	.070	.064	.054	.034	.030	.021	.015	.011	.013	.013	.031	23
10	.013	.011	.014	.014	.014	.014	.014	.017	.025	.031	.032	.039	.042	.047	.050	.053	.055	.055	.049	.038	.028	.027	.022	.021	.030	24
11	.018	.027	.029	.029	.024	.022	.021	.024	.033	.040	.038	.037	.043	.047	.051	.050	.048	.045	.043	.038	.035	.037	.035	.036	.035	24
12	.036	.042	.048	.046	.044	.042	.044	.051	.052	.048	.046	.045	.044	.043	.043	.044	.050	.053	.041	.035	.034	.034	.034	.030	.043	24
13	.028	.026	.022	.017	.017	.022	.032	.021	.036	.035	.037	.038	.027	.029	.029	.024	.026	.027	.031	.033	.031	.027	.025	.028	.027	24
14	.023	.024	.022	.024	.021		.022	.019	.020	.021	.024	.024	.027	.029	.029	.031	.031	.031	.027	.029					.025	19
15						.019	.018	.018	.019	.022	.024	.029	.037	.044	.046	.047	.052	.055	.043	.035	.035	.031	.030	.029	.033	19
16	.031	.032	.038	.041	.036	.026	.018	.028	.029	.033	.049	.063	.063	.069	.074	.073	.078	.075	.069	.062	.062	.061	.055	.048	.051	24
17	.044	.040	.038	.034	.033	.031	.026	.029	.037	.042	.050	.052	.051	.050	.048	.050	.053	.054	.047	.041	.038	.035	.032	.034	.041	24
18	.034	.035	.034	.035	.032	.028	.025	.022	.021	.027	.019	.021	.034	.045	.046	.049	.049	.055	.049	.048	.036	.032	.027	.018	.034	24
19	.014	.019	.021	.018	.014		.000	.004	.013	.015	.025	.030	.044	.051	.046	.044	.046	.038	.027	.026	.013	.009	.000	.005	.023	23
20	.004	.005	.000				.000	.004	.020	.034	.042	.051	.058	.056	.055	.058	.056	.048	.042	.034	.029	.029	.030	.030	.033	21
21	.007	.013	.018	.044	.045	.045	.038	.044	.048	.054	.059	.064	.068	.067	.062	.068	.073	.070	.069	.068	.072	.079	.079	.074	.055	24
22	.049	.042	.049	.045	.041		.051	.046	.053	.069	.071	.068	.064	.067	.069	.071	.079	.089	.081	.079	.079	.069	.072	.074	.066	23
23	.073	.070	.066	.061	.058	.056	.051	.047	.041	.037	.039	.039	.037	.034	.037	.044	.053	.054	.039	.029	.027	.029	.031	.034	.045	24
24	.034	.031	.027	.023	.020		.034	.035	.031	.033	.039	.044	.048	.052	.055	.056	.055	.050	.040	.034	.030	.030	.024	.011	.034	23
25	.010	.013	.012	.010	.016	.019	.019	.021	.024	.032	.040	.048	.059	.068	.071	.074	.074	.072	.068	.048	.050	.041	.039	.039	.040	24
26	.027	.029	.027	.024	.021	.015	.016	.018	.020	.030	.044	.045	.046	.050	.053	.050	.049	.044	.034	.037	.038	.039	.039	.040	.035	24
27	.036	.030	.025	.019	.017	.014	.017	.033	.039	.042	.048	.049	.050	.054	.059	.059	.063	.061	.050	.044	.039	.034	.039	.025	.039	24
28	.023	.025	.031	.029	.034	.037	.037	.038	.039	.039	.037	.036	.040	.043	.045	.042	.043	.041	.040	.039	.039	.034	.039	.039	.037	24
29	.031	.025	.022	.023	.024	.027	.029	.030	.031	.036	.043	.050	.050	.052	.055	.057	.053	.049	.041	.033	.028	.019	.024	.025	.036	24
30	.022	.020	.019	.019	.019	.019	.019	.019	.021	.027	.034	.040	.045	.051	.060	.071	.072	.073	.059	.039	.039	.037	.033	.032	.037	24
AVG	.027	.027	.025	.027	.024	.021	.021	.024	.031	.038	.044	.048	.050	.052	.054	.055	.055	.054	.047	.040	.038	.035	.033	.031	.038	
NO.	28	28	28	27	27	27	30	30	30	30	30	30	30	30	29	30	30	29	29	28	28	29	29			691
MAX	.073	.070	.066	.061	.058	.056	.051	.051	.043	.075	.079	.080	.076	.075	.081	.080	.079	.089	.081	.079	.079	.079	.079	.074	.089	

25

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA,
110 S. ELWOOD ST, TULSA, OK.
(373000096A051)

OZONE
44201(1)
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

JUL 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																			.050	.047	.043	.040	.040	.025	.041	6
2																										0
3																										0
4																										0
5																										0
6																										0
7																										0
8																										0
9																										0
10																										0
11	.018	.020	.020	.018	.013	.007	.006	.004		.014	.023	.045	.050	.038	.029	.020	.013	.014	.015	.020	.025	.012	.005	.007	.019	23
12	.010	.005	.003	.002	.002	.002	.002	.005		.018	.018	.014	.030	.028	.030	.025	.026	.023	.020						.015	18
13		.015	.012	.015	.013	.008	.003	.006		.021	.017	.021	.033	.042	.031	.025									.017	20
14	.019	.011	.010	.012	.014	.011	.007	.010		.032	.027	.022	.027	.037	.039	.039	.042	.044	.047	.027	.022	.012	.010	.022	.024	23
15	.020	.026	.027	.028	.033	.034	.013	.018		.041	.045	.051	.058	.067											.035	13
16	.034	.041	.030	.015		.029	.023	.024	.040	.050	.050	.057	.072	.077	.070	.057	.060	.074	.070	.061	.040	.033	.021	.020	.045	23
17	.030	.043	.040	.043	.048	.045	.035	.030	.035	.045	.050	.040	.045	.043	.045	.045	.035	.020	.015	.008	.015	.030	.030	.027	.035	24
18	.025	.038	.024	.025		.023	.020	.030	.055	.040	.035	.035	.038	.040	.033	.020	.025	.020	.043	.015	.015	.024	.025	.036	.029	23
19	.030	.023	.024	.026	.025	.029	.014	.018	.040	.045	.070	.075	.050	.062	.062	.050	.062	.069	.047	.072	.062	.055	.055	.052	.047	24
20	.051	.049	.045	.043		.033	.020	.015	.024	.040	.043	.045	.050	.057	.065	.048	.048	.050	.050	.048	.044	.040	.040	.044	.042	23
21	.038	.016	.013	.014	.013	.006	.010	.014	.021	.035	.050	.048	.050	.040	.043	.033	.038	.023	.009	.013	.013	.008	.010	.013	.024	24
22	.023	.015	.033	.036	.037	.033	.029	.029	.048	.040	.075	.092	.105	.127	.107	.094		.028	.025	.049	.041	.038	.035	.023	.061	23
23	.025	.035	.033	.028	.010	.008	.005	.030	.044	.045	.055	.082	.087	.090	.093	.100	.090	.085	.080	.072	.051	.052	.050	.040	.054	24
24	.023	.020	.014	.013		.006	.008	.009	.020	.035	.043	.050	.065	.045	.070	.062	.023	.015	.008	.035	.040	.028	.029	.030	.029	23
25	.018	.015	.020	.008		.010	.015	.014	.045	.065	.070	.067	.068	.066	.070	.074	.064	.045	.057	.085	.076	.068	.052	.052	.049	23
26	.048	.038	.035	.035		.018	.013	.023	.043	.057	.045	.035	.033	.035	.052	.040	.060	.049	.050	.048	.043	.035	.023	.020	.039	23
27	.018	.019	.018	.015	.013	.006	.005	.004	.010	.013	.013	.020	.028	.031	.033	.033	.028	.040	.033	.024	.023	.026	.025	.031	.021	24
28	.035	.038	.038	.038		.026	.020	.020	.019	.026	.040	.072	.055	.070	.047	.050	.041	.050	.062	.051	.038	.023	.040	.044	.042	23
29	.038	.041	.038	.030		.008	.009	.018	.052	.072				.055	.077	.075	.077	.090	.112	.087	.057	.038	.013	.015	.050	20
30	.018	.015	.005	.004	.004	.006	.005	.008	.009	.015	.023	.035	.038	.044	.030	.033	.040	.048	.067	.060	.062	.060	.052	.033	.029	24
31	.026	.013	.025	.043		.021	.021	.025	.021	.043	.044	.085	.084	.085	.075	.060	.050	.035	.033	.048	.041	.020	.008	.008	.041	23
AVG	.028	.025	.024	.024	.019	.017	.013	.017	.033	.039	.043	.049	.052	.057	.055	.050	.046	.043	.044	.044	.038	.032	.028	.028	.035	
NO.	20	21	21	21	12	21	21	21	16	21	20	20	20	21	20	20	18	19	21	20	20	20	20	20		474
MAX	.051	.049	.045	.043	.048	.045	.035	.030	.055	.072	.075	.092	.105	.127	.107	.100	.090	.085	.112	.087	.076	.044	.055	.052	.127	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
42201 11
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
TULSA
110 S. ELWOOD ST, TULSA, OK.
(373000096005)

1-HOUR DATA LISTING

AUG 1977

DAY	AM												PM											DAILY MEAN NO.	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.003	.015	.024	.023		.000	.001	.004	.018	.028	.035	.050	.057	.064	.059	.051	.044	.045	.040	.031	.018	.005	.008	.003	.027	23
2	.005	.004	.000	.001	.020	.009	.010	.018	.035	.040	.056	.082	.079	.080	.085	.084	.080	.085	.094	.087	.070	.050	.013	.028	.047	24
3	.025	.010	.005	.004	.008	.010	.008	.010	.035	.040	.050	.072	.082	.067	.045	.043	.025	.035	.038	.056	.043	.013	.015	.013	.031	24
4	.010	.008	.010	.018	.008	.013	.018	.005	.010	.013	.004	.040	.072	.067	.055	.035	.035	.035	.030	.040	.038	.025	.010	.030	.028	24
5	.029	.024	.008	.015	.031	.008	.023	.024	.025	.030	.025	.026	.038	.039	.041	.026	.035	.040	.049		.021	.014	.015	.015	.024	23
6	.009	.015	.007	.011	.010	.010	.007	.006	.006	.009	.012	.015	.017	.030	.017	.016	.017	.014	.010	.014	.015	.007	.007	.016	.012	24
7	.015	.015	.012	.010	.007	.001	.009	.005	.007	.014	.019	.020	.020	.017	.015	.014	.010	.012	.015	.015	.012	.010	.011	.010	.012	24
8	.017	.010	.005	.012	.007	.005	.000	.004	.012	.015	.025	.025	.020	.022	.017	.014	.012	.017	.012	.016	.016	.014	.014	.020	.014	24
9	.024	.015	.017	.010	.015	.012	.007	.009	.015	.015	.020	.025	.017	.017	.022	.010	.012	.015	.006	.005	.012	.014	.009	.009	.013	24
10	.001	.009	.002	.011	.012	.011	.009	.015	.024	.051		.061	.085	.068	.058	.050	.054	.059	.019	.009	.005	.017	.017	.019	.029	23
11	.027	.032	.032	.020	.020	.015	.007	.009	.030	.037	.037	.032	.051	.060	.051	.045	.032	.024	.025	.025	.025	.024	.024	.023	.029	24
12	.022	.025	.024	.021	.019	.012	.006	.012	.016	.022	.036	.047	.056	.060	.046	.056	.047	.044	.049	.042	.050	.037	.026	.024	.034	24
13	.026	.017	.025	.024	.018	.010	.009	.010	.019	.025	.032	.026	.028	.029	.033	.039	.042	.048	.041	.037	.025	.025	.030	.026	.027	24
14	.022	.026	.021	.019	.020	.018	.017	.017	.019	.019	.035	.047	.060	.070	.075	.073	.058	.057	.030	.037	.044	.040	.049	.029	.037	24
15	.011	.014	.012	.010	.010	.001	.002	.004	.015	.030	.035	.037	.042	.059	.055	.051	.056	.055	.050	.039	.007	.007	.007	.002	.025	24
16	.001	.002	.004	.006	.006	.002	.002	.004	.006	.017	.015	.040	.041	.044	.039	.030	.012	.025	.026	.004	.006	.015	.018	.012	.016	24
17	.011	.025	.024	.016	.020	.025	.011	.009	.009	.011	.015	.014	.013	.015	.023	.024	.026	.027	.025	.014	.019	.012	.011	.016	.017	24
18	.019	.017	.017	.015	.012	.002	.002	.005	.017	.050	.065	.063	.058	.056	.045	.046	.042	.034	.035	.034	.025	.016	.018	.018	.030	24
19	.022	.026	.025	.023	.013	.006	.003	.001	.004	.008	.006	.013	.024	.029	.027	.027	.030	.020	.019	.024	.032	.030	.032	.030	.020	24
20	.031	.035	.035	.033	.033	.009	.010	.009	.015	.015	.020	.025	.038	.056	.060	.067	.060	.052	.049	.034	.029	.018	.013	.006	.031	24
21	.018	.011	.015	.006	.006	.007	.007	.024	.025	.036	.045	.049	.060	.060	.057	.055	.053	.053	.042	.025	.036	.017	.000	.002	.030	24
22	.000	.002	.000	.000	.000	.000	.000	.005	.050	.045	.040	.050	.047	.052	.058	.054	.051	.037	.038	.031	.015	.005	.007	.019	.025	24
23	.022	.024	.044	.034	.030	.028	.017	.018	.019	.016	.027	.047	.056	.063	.066	.058	.065	.101	.090	.042	.030	.028	.018	.035	.041	24
24	.017	.010	.024	.020	.014	.010	.007	.008	.014	.028	.049	.043	.040	.045	.060	.057	.057	.055	.044	.041	.032	.026	.028	.027	.034	24
25	.029	.030	.023	.024	.027	.026	.023	.027	.037	.034	.035	.042	.040	.042	.043	.041	.039	.042	.047	.041	.039	.032	.010	.008	.033	24
26	.011	.015	.015	.022	.029	.016	.012	.012	.014	.010	.010	.013	.012	.011	.018	.018	.014	.018	.009	.016	.002	.000	.000	.002	.017	24
27	.001	.011	.007	.004	.012	.007	.005	.007	.013	.015	.013	.014	.017	.017	.015	.017	.019	.011	.011	.017	.011	.008	.010	.005	.011	24
28	.006	.004	.005	.002	.005	.003	.003	.006	.005		.034	.031	.023	.021	.018	.029	.020	.019	.014	.016	.021	.029	.022	.026	.015	23
29	.025	.022	.020	.018	.017	.010	.005	.004	.007		.013	.024	.028	.036	.041	.051	.061	.068	.053	.030	.018	.006	.012	.025	.026	24
30	.025	.022	.022	.021	.018	.013	.007	.007	.007	.016	.021	.017	.031	.039	.033	.034	.036	.041	.033	.024	.026	.027	.031	.030	.029	24
31	.016	.007	.010	.013	.009	.004	.006	.006	.008	.012	.010	.015	.016	.016	.022	.030	.029	.034	.034	.030	.018	.015	.019	.021	.017	24
AVG	.016	.016	.016	.015	.015	.010	.008	.010	.017	.024	.028	.037	.041	.043	.043	.040	.038	.039	.035	.029	.025	.019	.016	.017	.025	
NO.	31	31	31	31	30	31	31	31	31	29	30	31	31	31	31	31	31	31	31	30	31	31	31	31		739
MAX	.031	.035	.044	.034	.033	.028	.023	.027	.050	.051	.065	.082	.085	.080	.085	.084	.080	.101	.094	.087	.070	.050	.044	.035	.101	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
110 S. ELWOOD ST; TULSA, OK.
(373000996A051

OZONE
44201|1
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.026	.019	.021	.016	.003	.004	.014	.013	.018	.034	.035	.027	.031	.030	.032	.030	.034	.033	.026	.012	.012	.014	.011	.005	.021 24
2	.009	.008	.010	.020	.012	.003	.004	.006	.026	.032	.044	.034	.046	.041	.043	.048	.048	.047	.027	.013	.013	.011	.000	.000	.023 24
3	.002	.000	.000	.000	.000	.010	.010	.011	.019	.042	.043	.056	.042	.050	.047	.048	.047	.048	.041	.048	.046	.047	.040	.033	.035 24
4	.029	.041	.026	.011	.041	.038	.036	.031	.021	.050	.059	.053	.047	.048	.059	.051	.052	.053	.042	.041	.033	.030	.026	.031	.041 24
5	.036	.041	.040	.034	.037	.042	.037	.027	.020	.024	.031	.043	.046	.045	.047	.044	.037	.029	.014	.018	.011	.008	.020	.021	.031 24
6	.023	.020	.018	.017	.013	.004	.002	.004	.016	.033	.046	.056	.056	.058	.061	.057	.056	.054	.045	.021	.011	.025	.023	.020	.031 24
7	.011	.018	.020	.016	.011	.003	.001	.006	.019	.036	.046	.061	.066	.064	.068			.061	.050	.021	.006	.004	.018	.013	.028 22
8	.002	.002	.002	.000	.004	.001	.002	.013	.018	.036	.026	.036	.044	.048	.039	.042	.040	.044	.039	.036	.038	.020	.013	.007	.023 24
9	.011	.008	.007	.018	.009	.002	.002	.010	.024	.035	.057	.058	.060	.041	.040	.037	.032	.025	.019	.018	.017	.014	.013	.013	.024 24
10	.013	.016	.019	.018	.015	.013	.010	.011	.017	.012	.010	.026	.038	.048	.051	.054	.057	.052	.042	.027	.011	.011	.008	.008	.024 24
11					.031	.022	.021	.017	.018			.027	.031	.038	.046	.049	.049	.045	.039	.033	.034	.035	.033	.022	.033 18
12	.014	.011	.020	.023	.021	.020	.014	.011	.022	.023	.021	.021	.016	.016	.018	.015	.014	.014	.016	.011	.009	.014	.011	.014	.016 24
13	.008	.013	.016	.011	.010	.013	.001	.004	.006	.006	.017	.022	.015	.014	.013	.018	.023	.039	.039	.030	.029	.024	.025	.026	.017 24
14	.024	.025	.025	.022	.021	.016	.014	.014	.015	.018	.018	.021	.022	.023	.023	.025	.023	.024	.024	.024	.025	.025	.023	.024	.022 24
15	.024	.024	.023	.023	.018	.011	.003	.003	.006	.007	.013	.020	.029	.033	.034	.038	.036	.033	.023	.018	.016	.018	.023	.026	.021 24
16	.028	.025	.010	.018	.014	.008	.002	.021	.002	.003	.009	.028	.027	.026	.030	.026	.028	.024	.030	.016	.019	.021	.028	.036	.019 24
17	.029	.026	.015	.020	.017	.008	.002	.011	.009	.012	.013	.014	.017	.020	.018	.021	.020	.018	.009	.011	.005	.003	.004	.006	.014 24
18	.009	.006	.002	.004	.005	.005	.008	.006	.006	.010	.005	.009	.012	.015	.016	.015	.028	.053	.042	.033	.022	.019	.025	.027	.016 24
19	.025	.024	.020	.017	.016	.008	.004	.011	.017	.022	.025	.032	.032	.031	.033	.032	.030	.030	.020	.009	.002	.004	.010	.008	.019 24
20	.013	.015	.012	.017	.021	.006	.001	.001	.008	.022	.022	.021	.026	.042	.046	.042	.038	.041	.030	.036	.036	.035	.037	.037	.025 24
21	.034	.027	.010	.011	.008	.012	.007	.017	.021	.032	.038	.053	.052	.048	.045	.042	.027	.038	.045	.037	.041	.022	.023	.022	.030 24
22	.013	.036	.052	.046	.050	.034	.018	.021	.033	.042	.046	.051	.046	.039	.049	.031	.033	.081	.079	.074	.070	.070	.051	.057	.047 24
23	.050	.058	.046	.040	.026	.012	.007	.010	.010	.005	.006	.006	.014	.007	.010	.012	.012	.014	.006	.000	.002	.001	.002	.003	.015 24
24	.008	.013	.019	.027	.024	.022	.018	.013	.018	.017	.023	.038	.049	.043	.044	.044	.043	.035	.015	.002	.001	.000	.002	.001	.021 24
25	.001	.006	.010	.011	.005	.000	.004	.010	.008	.025	.041	.056	.067	.076	.075	.069	.067	.055	.031	.032	.034	.030	.028	.025	.032 24
26	.023	.026	.021	.022		.006	.002	.003	.012	.020	.020	.021	.024	.031	.033	.027	.014	.019	.022	.013	.011	.014	.018	.016	.018 23
27	.007	.011	.010	.016	.016	.025	.016	.012	.016	.029	.041	.050	.056	.053	.060	.052	.046	.040	.024	.030	.030	.030	.026	.023	.030 24
28	.016	.015	.012	.020	.020	.015	.015	.013	.024	.030	.027	.029	.025	.019	.023	.016	.019	.030	.024	.032	.031	.029	.028	.021	.022 24
29	.021	.023	.021	.022	.021	.016	.005	.006	.016	.021	.035	.037	.044	.063											.025 14
30																									0
AVG	.018	.020	.018	.017	.018	.013	.010	.011	.016	.024	.030	.035	.039	.039	.039	.037	.036	.039	.031	.025	.022	.021	.020	.019	.025
NO.	28	28	28	28	28	29	29	29	29	28	28	29	29	29	28	27	27	28	28	28	28	28	28	28	677
MAX	.050	.058	.052	.046	.050	.042	.037	.031	.033	.050	.063	.061	.067	.076	.075	.069	.067	.081	.079	.074	.070	.070	.051	.057	.081

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
44201|1
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
TULSA
9616 E. 15TH ST.
(373000997A051)

1-HOUR DATA LISTING

JUL 1977

DAY	12	1	2	3	4	AM 5	6	7	8	9	10	11	12	1	2	3	4	PM 5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5	.027	.037	.042	.042	.037	.029	.019	.034	.047	.051 .054	.051 .056	.054 .066	.059 .068	.061 .078	.059 .069	.054	.056	.054	.059	.049	.029	.037	.033	.039	.050	15
6																									.047	15
7																										0
8																										0
9	.029	.027	.024	.022	.022	.022	.017	.012											.054	.047	.037	.029	.032	.029	.037	6
10	.019	.016	.018	.023	.023	.021	.028	.033	.043	.044 .055	.064 .065	.071 .072	.064 .070	.056 .067	.032	.019	.039	.039	.042	.027	.022	.019	.019	.014	.033	23
11																									.039	14
12									.033		.048	.053	.050	.048	.048	.048	.048	.053	.050	.053	.058	.045	.036		.048	14
13	.040	.040	.036	.028	.018	.021	.016	.016		.036	.038	.043	.045	.048	.048	.051	.043	.040	.040	.033	.031	.038	.023	.028	.036	18
14	.031	.026	.023	.018	.014	.014	.011	.014	.031	.038	.043	.043	.048	.053	.048	.040	.033	.038	.028	.023	.014		.023	.028	.032	23
15	.038	.033	.033	.028	.026	.023	.018	.033	.053	.055	.060 .072	.063 .075	.060 .075	.065 .072	.060 .072	.060 .077	.065 .077	.067 .072	.060 .072	.053 .053	.045	.040 .055	.038 .055	.036 .043	.043 .052	23
16	.038	.040	.038	.038	.038	.033	.033	.040	.055	.080	.087	.087	.090	.077	.072	.067	.063	.060	.053	.048	.043	.038	.036	.043	.054	24
17	.045	.045	.040	.043	.040	.040	.043	.048	.048	.063	.072	.075	.072	.070	.070	.067	.070	.067	.060	.053	.031	.026	.036	.033	.052	24
18	.031	.036	.028	.028	.026	.031	.018	.031	.045	.071	.067	.063	.063	.063	.063	.060	.060	.060	.055	.048	.038	.031	.028	.038	.045	24
19	.043	.038	.038	.038	.033	.031	.023	.031	.043		.075	.072	.072	.072	.070	.070	.070	.070	.065	.063	.055	.053	.053	.048	.053	23
20	.048	.043	.038	.036	.031	.026	.018	.028	.038	.050	.067	.072	.075	.077	.065	.053	.045	.048	.045	.038	.036	.038	.038	.036	.045	24
21	.038	.040	.038	.036	.036	.028	.018	.021	.031		.053	.065	.063	.063	.060	.050	.050	.034	.038	.033	.016	.011	.011	.009	.037	23
22	.014	.023	.026	.031	.033	.033	.026	.031	.045		.067	.085	.094	.124	.124	.082	.063	.048	.038	.043	.028	.036	.023	.018	.049	23
23	.023	.028	.028	.023	.011	.009	.018	.026	.045	.063	.072	.092	.108	.102	.099	.092	.082	.085	.085	.060	.040	.033	.043	.038	.054	24
24	.045	.043	.038	.036	.033	.028	.026	.033	.045							.072	.077	.080	.072	.063	.058	.045	.043	.043	.049	18
25	.045	.040	.038	.045	.048	.043	.033	.038	.048		.077	.075	.075	.075											.062	13
26																										
27	.018	.018	.018	.014	.014	.009	.006	.000	.009	.011	.043	.043	.031	.045	.053	.055	.063	.045	.038	.038	.033	.033	.023	.018	.040	14
28	.036	.038	.036	.038	.038	.023	.026	.018	.023	.033	.014	.018	.018	.023	.027	.031	.026	.023	.029	.028	.026	.033	.031	.034	.020	24
29	.041	.038	.034	.029	.025	.014	.015	.027	.044		.037			.077	.077	.075	.072	.067	.050	.038	.018	.018	.026	.033	.041	22
30	.036	.033	.034	.033	.029	.028	.025	.027	.037		.121	.119	.093	.090	.087	.102	.096	.090	.092	.063	.040	.043	.044	.037	.060	23
31	.048	.049	.046	.043	.037	.029	.017	.022	.032	.039	.057	.060	.062	.067	.067	.067	.065	.063	.045	.040	.048	.050	.050	.043	.046	23
AVG	.035	.034	.033	.032	.029	.025	.021	.027	.040	.050	.061	.066	.066	.069	.065	.062	.060	.057	.052	.045	.036	.035	.033	.032	.045	
NO.	21	21	21	21	21	22	22	22	21	15	24	23	23	24	22	22	22	22	23	23	22	22	23	22		524
MAX	.048	.049	.046	.045	.048	.043	.043	.048	.055	.080	.121	.119	.108	.124	.124	.102	.096	.090	.092	.063	.058	.055	.055	.048	.124	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
TULSA
9416 E. 15TH ST.
(373000997A051)

1-HOUR DATA LISTING

AUG 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.014	.016	.023	.022	.019	.010	.008	.012	.023	.033	.043	.050	.054	.049	.048	.051	.042	.037	.019	.005	.000	.000	.019	.027	.024	24
2	.028	.023	.011	.014	.024	.011	.018	.040			.070	.093	.092	.094	.092	.085	.078	.082	.086	.058	.049	.044	.040	.039	.053	22
3	.040	.039	.037	.034	.031	.022	.017	.018	.038		.045	.043	.092	.101	.090	.078	.079	.070	.055	.051	.039	.037	.041	.048	.051	23
4	.040	.046	.039	.047	.048	.037	.027	.010	.015		.043	.053	.045	.063	.069	.064	.064	.064	.056	.046	.046	.051	.058	.063	.049	23
5	.062	.061	.056	.051	.049	.040	.023	.029	.048		.075	.087	.089	.087	.082	.080	.071	.059	.048	.044	.043	.050	.053	.055	.058	23
6	.055	.049	.044	.038	.039	.033	.031	.029	.036	.039	.042	.047	.048	.050	.052	.048	.045	.042	.037			.033	.040	.045	.042	22
7	.047	.051	.051	.039	.032	.032	.034	.039	.046	.059	.060	.062	.066	.067	.061	.054	.053	.052	.052	.047	.038	.033	.033	.039	.048	24
8	.042	.042	.042	.039	.036	.026	.022	.035	.048		.048	.060	.062	.068	.062	.061	.061	.061	.062	.051	.041	.038	.042	.047	.048	23
9	.047	.047	.050	.051	.045	.034	.025	.034	.051		.064	.058	.058	.067	.067	.065	.062	.062	.054	.038	.033	.045	.043	.032	.049	23
10	.036	.037	.037	.039	.040	.032	.025	.035	.052		.077	.085	.107	.111	.069	.052	.063	.058	.049	.047	.044	.034	.032	.030	.051	23
11	.035	.037	.034	.029	.029	.018	.009	.012	.026		.037	.040	.054	.068	.066	.053	.035	.024	.026	.027	.026	.025	.026	.025	.033	23
12	.027	.026	.025	.023	.020	.015	.009	.012	.020	.022				.081	.096	.076	.068	.057	.061	.047	.039	.042	.041	.040	.040	21
13	.034	.036	.033	.032	.027	.028	.029	.019	.022		.041	.033	.032	.029	.026	.038	.037	.035	.035	.027	.019	.029	.029	.018	.029	23
14	.019	.019	.018	.017	.017	.016	.016	.020	.032	.042	.055	.062	.069	.067	.069	.066	.050	.052	.039	.037	.042	.044	.042	.033	.039	24
15	.037	.047	.036	.030	.017	.008	.007	.015	.027		.056	.061	.064	.066	.065	.063	.061	.052	.042	.034	.027	.031	.027	.021	.039	23
16	.016	.021	.025	.024	.022	.017	.012	.017	.035		.031	.038	.047	.048	.053										.029	14
17												.017	.019	.021	.027	.030	.032	.034	.027	.018	.011	.008	.019	.016	.021	13
18	.020	.026	.027	.024	.017	.008	.011	.014	.021		.073	.065	.060	.057	.057	.062	.047	.039	.033	.025	.025	.024	.038	.037	.037	23
19	.057	.072	.072	.075	.073	.074	.068	.062	.046		.005	.012	.020	.017	.008	.009	.018	.034	.035	.022	.017	.012	.019	.022	.037	23
20	.022	.016	.012	.008	.017	.023	.022	.021	.029		.032	.040	.047	.057	.057	.057	.047	.034	.022	.015	.013	.019	.027	.031	.029	23
21	.019	.017	.017	.015	.022	.019	.016	.014	.020	.022	.027	.048	.077	.067	.062	.065	.058	.047	.040	.022	.025	.015	.022	.019	.032	24
22	.012	.010	.015	.012	.005	.000	.000	.005	.027	.047	.053	.058	.054	.054	.057	.052	.048		.039	.024	.025	.023	.017	.016	.028	23
23	.018	.023	.046	.045	.041	.028	.014	.019		.033	.047	.069	.082	.088	.092	.087	.081	.085	.052	.037	.027	.019	.022	.027	.047	23
24	.024	.015	.023	.024	.017	.007	.005	.007	.016		.047	.067	.068	.068	.067	.060	.060	.058	.047	.027	.032	.029	.029	.027	.036	23
25	.025	.028	.029	.029	.028	.029	.026	.035	.043	.045	.051	.052	.053	.050	.049	.047	.045	.048	.043	.041	.032	.030	.032	.034	.038	24
26	.044	.044	.042	.043	.043	.039	.027	.023	.028	.034	.040	.045	.045	.049	.050	.054	.051	.049	.034	.028	.024	.026	.031	.031	.038	24
27	.032	.036	.035	.030	.030	.027	.021	.021	.023	.027	.032	.032	.033	.033	.034	.033	.030	.030		.030	.030	.029	.027	.029	.030	23
28	.029	.026	.024	.021	.020	.020	.019	.018	.019	.027	.033	.027	.023	.019	.018	.018	.024	.019	.013	.013	.018	.019	.022	.024	.024	24
29	.022	.020	.018	.017	.016	.009	.004	.004	.006	.007	.009	.010	.025	.050	.043	.057	.063	.074		.023	.003	.003	.007	.012	.022	23
30	.016	.017	.017	.016	.013	.012	.009	.005	.014	.026	.030	.037	.037	.036	.037		.036	.035	.030	.020	.020	.022	.026	.031	.023	23
31	.028	.025	.025	.024	.022	.023	.021	.025	.033	.040	.043	.039	.038	.039	.040	.039	.038	.038	.029	.022	.018	.018	.010	.019	.029	24
AVG	.032	.032	.032	.030	.029	.023	.019	.022	.030	.033	.046	.050	.056	.059	.057	.056	.052	.049	.041	.032	.028	.029	.030	.031	.037	
NO.	30	30	30	30	30	30	30	30	29	15	29	30	30	31	31	29	30	29	29	29	29	30	30	30		698
MAX	.062	.072	.072	.075	.073	.074	.068	.062	.052	.059	.077	.093	.107	.111	.096	.087	.081	.085	.086	.058	.046	.074	.058	.063	.111	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
9616 E. 15TH ST.
(373000997A05)

OZONE
44201|1
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.027	.028	.023	.014	.008	.005	.011	.013	.024	.037	.048	.053	.044	.042	.038	.037	.033	.030	.019	.013	.006	.009	.017	.022	.025	24
2	.023	.022	.020	.021	.021	.010	.005	.012	.028	.044	.053	.064	.059	.053	.053	.052	.050	.043	.024	.011	.008	.009	.004	.004	.029	24
3	.015	.014	.009	.005	.004	.004	.006	.019	.033	.059	.079	.080	.074	.074	.072	.069	.064	.048	.039	.024	.010	.019	.024	.015	.034	24
4	.024	.028	.024	.021	.033	.039	.038	.035		.067	.074	.087	.084	.085	.084	.060	.061	.058	.047	.043	.039	.030	.028	.034	.049	23
5	.034	.038	.039	.041	.045	.043	.042	.035	.022	.023	.028	.034	.035	.032	.033	.039	.031	.029	.022	.020	.014	.013	.018	.020	.030	24
6	.021	.019	.018	.018	.015	.012	.004	.005	.015	.022	.039	.054	.061	.069	.069	.060	.056	.053	.040	.017	.022	.025	.024	.022	.031	24
7	.019	.018	.017	.014	.013	.004	.004	.009	.017	.025	.048	.054	.059	.056	.063	.063	.061	.055	.032	.014	.009	.011	.017	.014	.029	24
8	.009	.013	.018	.018	.006	.007	.005	.005	.026	.049	.055	.061	.057	.051	.048	.047	.047	.044	.028	.025	.033	.034	.035	.033	.031	24
9	.034	.036	.031	.025	.019	.018	.011	.011	.029		.082	.094	.059	.059	.041	.043	.038	.030	.023	.019	.019	.018	.017	.015	.033	23
10	.015	.018	.019	.019	.019	.018	.016	.015	.022	.025	.017	.020	.037	.047	.048	.053	.051	.043	.035		.019	.012	.013	.011	.024	23
11	.013	.012	.017	.022	.025	.026	.026	.029	.022	.023	.025	.029	.030	.033	.046	.046	.047	.044	.040	.034	.034	.034	.039	.039	.031	24
12	.041	.043	.042	.040	.037	.031	.020	.030	.046	.046	.048	.047	.047	.044	.041	.040	.033	.035	.037	.036	.032	.034	.033	.034	.038	24
13	.027	.023	.023	.022	.019	.013	.012	.012	.013	.009	.013	.020	.015	.016	.025	.020	.018	.028	.035	.034	.032	.029	.028	.027	.021	24
14	.026	.025	.028	.025	.024	.022	.022	.022	.018		.024	.022	.024	.026	.027	.027	.027	.029	.029	.028	.027	.025	.025	.024	.025	23
15	.024	.024	.024	.024	.024	.022	.008	.006	.005	.017	.013	.020	.031	.038	.042	.051	.045	.035	.015	.007	.005	.012	.017	.019	.022	24
16	.024	.028	.037	.040	.028	.010	.000	.000	.000	.007	.013	.048	.062	.064	.067	.070	.064	.064	.044	.033	.035	.039	.043	.044	.036	24
17	.043	.041	.038	.036	.034	.031	.026	.024	.033	.042	.050	.051	.048	.047	.045	.043	.036	.029	.021	.020	.019	.018	.027	.034	.035	24
18	.036	.035	.028	.029	.024	.022	.018	.019	.022	.027	.025	.028	.034	.042	.047	.050	.049	.041	.041	.028	.041	.030	.024	.029	.030	24
19	.031	.029	.025	.024	.023	.017	.011	.013	.020	.024		.034	.036	.038	.038	.038	.039	.029	.017	.004	.009	.004	.004	.005	.022	23
20	.010	.018	.014	.014	.010	.007	.004	.025	.010	.033	.034	.039	.038	.043	.044	.042	.043	.035	.023	.030	.034	.037	.038	.039	.027	24
21	.037	.035	.040	.039	.042	.040	.025	.028	.034	.039		.057	.058	.057	.057	.058	.057	.055	.050	.040	.073	.072	.069	.067	.050	23
22	.047																								.047	1
23																										0
24																										0
25								.017	.022	.029	.039	.054	.074	.079	.093	.088	.066	.061	.037	.029	.032	.035	.027	.029	.048	17
26	.025	.023	.020	.015	.013	.005	.000	.000	.005	.024	.033	.035	.039	.040	.040	.040	.040	.034	.019	.013	.019	.027	.035	.033	.024	24
27	.027	.029	.025	.018	.010	.022	.019	.018	.025		.030	.045	.045	.044	.048	.047	.039	.033	.020	.019	.017	.021	.019	.018	.028	23
28	.021	.019	.019	.018	.017	.015	.005	.007		.035	.028	.025	.025	.025	.025	.023	.023	.017	.015	.020	.023	.022	.021	.016	.020	23
29	.017	.019	.020	.019	.017	.012	.002	.004	.018	.025		.034	.040	.051	.054	.049	.037	.025	.012	.011	.007	.012	.011	.007	.022	23
30	.011	.016	.016	.015	.014	.012	.005	.004																	.012	8
AVG	.026	.025	.024	.023	.021	.018	.013	.015	.021	.032	.039	.046	.047	.048	.049	.048	.044	.040	.029	.024	.023	.024	.025	.025	.030	
NO.	27	26	26	26	26	26	26	27	24	23	23	26	26	26	26	26	26	26	26	25	26	26	26	26		617
MAX	.047	.043	.042	.041	.045	.043	.042	.035	.046	.047	.082	.094	.084	.085	.093	.088	.066	.064	.050	.040	.073	.072	.069	.067	.094	

31

D32078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020994A051)

1-HOUR DATA LISTING

JUL 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1																									
2																									
3																									
4																									
5	.037	.040	.051	.045	.032	.022	.019	.037	.052	.060	.063	.070	.068	.068	.070	.078	.073	.043	.045	.040	.052	.040	.027	.019	.032	.047	9
6	.029	.022	.019	.024	.029	.040	.034	.042	.051	.052	.058	.065	.063	.065	.070	.083	.076	.070	.045	.040	.048	.063	.058	.051	.051	.042	24
7	.058	.052	.050	.052	.047	.045	.037	.042	.047	.055		.060	.068	.073	.076	.078	.073	.068	.063	.050	.042	.034	.014	.019	.019	.050	23
8	.019	.014	.011	.019	.030	.032	.037	.040	.045	.052	.055	.060	.060	.060	.058		.060	.063	.058	.052	.047	.040	.022	.024	.042	.042	23
9	.024	.022	.032	.029	.027	.027	.032	.032	.037	.045	.060	.070	.076	.070	.055	.050	.055	.055	.055	.050	.037	.034	.019	.014	.042	.042	24
10	.014	.016	.014	.010	.006	.004	.012	.039	.051	.063	.070	.088	.095	.092	.088	.083	.077	.072	.060	.050	.040	.037	.037	.040	.048	.048	24
11	.035	.034	.034	.028	.027	.026	.027	.027	.035		.050	.068	.070	.067	.055	.053	.052	.054	.057	.059	.064	.058	.040	.030	.045	.045	23
12	.030	.030	.032	.032	.030	.026	.021	.024	.032		.045	.052	.060	.063	.063	.060	.055	.057	.064	.052	.037	.045	.047	.050	.044	.044	23
13	.048	.043	.041	.034	.027	.023	.019	.027	.035		.053	.056	.053	.005	.070	.062	.056	.050	.042	.034					.041	.041	19
14		.007	.007	.006	.006	.009	.013	.022	.050		.083	.079	.083	.088	.086	.083	.091	.094	.083	.068	.055	.039	.040		.052	.052	21
15	.027	.019	.023	.023	.019	.014	.022	.028	.058		.081	.099	.099												.043	.043	12
16	.015	.023	.032	.032	.037	.033	.023	.040			.091	.096	.106	.109	.091	.087	.082	.074	.069	.067	.059	.042	.025	.017	.057	.057	22
17	.032	.015	.020	.015	.027	.030	.035	.049		.069	.072	.068	.077	.077	.077	.077	.074	.068	.062	.053	.044	.027	.014	.012	.047	.047	23
18	.014	.022	.016	.014	.038	.012	.025	.047	.073		.078	.076	.074	.074	.076	.071	.068	.063	.065	.053	.046	.014	.004	.011	.045	.045	23
19	.009	.001	.002	.015	.010	.022	.025	.035	.067	.091	.101	.093	.082	.079	.077	.077	.077	.074	.069	.069	.062	.052	.053	.049	.054	.054	24
20	.048	.043	.042	.037	.030	.027	.025	.029	.047	.069	.079	.079	.087	.089	.089	.068	.062	.057	.052	.048	.039	.039	.038	.039	.053	.053	24
21	.039	.039	.035	.032	.027	.024	.019	.028		.062	.084	.098	.104	.110	.094	.074	.058	.048	.031	.014	.000	.008	.010	.012	.046	.046	23
22	.004	.004	.011	.022	.022	.027	.026	.037	.051		.057	.069	.079	.083	.084	.077	.074	.067	.067	.049	.051	.044	.037	.029	.047	.047	23
23	.017	.014	.012	.010	.009	.009	.010	.025	.032	.074	.099	.090	.082	.077	.079	.074	.068	.064	.062	.062	.052	.048	.037	.020	.047	.047	24
24	.032	.030	.022	.020	.020	.027	.030	.032	.049	.064	.074	.073	.069	.072	.073	.077	.082	.079	.074	.062	.057	.049	.038	.044	.052	.052	24
25	.037	.048	.052	.052	.052	.047	.042	.049	.062	.067	.069	.072	.077	.078	.079	.072	.072	.077	.088	.088	.074	.064	.058	.052	.069	.069	24
26	.049	.044	.039	.036	.030	.025	.030	.040	.047	.052	.049	.044	.047	.052	.054	.057	.052	.044	.048	.048	.039	.028	.027	.020	.042	.042	24
27	.021	.018	.016	.014	.015	.014	.011	.014	.015	.018	.023	.026	.032						.038	.038	.036	.031	.030	.031	.023	.023	19
28	.020	.020	.020	.014	.007	.001	.001	.001																	.010	.010	8
29										.058	.065	.067	.069	.070	.062	.072	.075	.075	.045	.065	.060	.044	.038	.036	.061	.061	15
30	.033	.026	.025	.028	.027	.021	.025	.036	.050	.060	.065	.070	.072	.080	.077	.074	.075	.075	.069	.054	.053	.055	.053	.045	.052	.052	24
31	.045	.043	.037	.038	.026	.023	.023	.026	.028	.043	.055	.067	.072	.066	.064	.055	.049	.039	.037	.044	.038	.034	.023	.023	.042	.042	24
AVG	.030	.026	.027	.026	.026	.023	.024	.033	.046	.059	.067	.071	.074	.074	.074	.071	.068	.065	.060	.054	.046	.037	.032	.030	.047		
NO.	25	26	26	26	26	26	26	26	22	18	25	26	26	24	25	23	25	25	26	24	25	25	25	24		597	
MAX	.058	.052	.052	.052	.052	.047	.042	.049	.073	.091	.101	.099	.106	.110	.094	.087	.091	.094	.088	.088	.074	.064	.063	.058	.110		

D1207A

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
4420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020990A051)

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.020	.016	.017	.018	.014	.006	.004	.009	.018	.031	.043	.049	.053	.051	.050	.049	.045	.045	.043	.038	.016	.001	.002	.001	.026 24
2	.000	.000	.000	.003	.021	.021	.013	.021	.035	.055	.076	.091	.074	.070	.070	.070	.075	.083	.063	.068	.069	.030	.018	.018	.044 24
3	.000	.008	.021	.025	.015	.013	.008	.015	.038	.045	.050	.065	.107	.135	.100	.088	.085	.085	.073	.055	.048	.038	.028	.028	.049 24
4	.038	.045	.053	.051	.046	.043	.039	.025	.018	.030	.040	.050	.073	.080	.078	.079	.078	.081	.075	.054	.050	.053	.061	.073	.055 24
5	.070	.064	.060	.056	.051	.035	.018	.025	.050	.075	.086	.095	.094	.101	.098	.093	.090	.083	.070	.055	.053	.055	.064	.064	.047 24
6	.054	.054	.050	.049	.038	.035	.030	.038	.039	.045	.053	.065	.065	.069	.068	.068	.060	.053	.050	.043	.043	.038	.030	.033	.049 24
7	.036	.040	.043	.039	.040	.039	.031	.038	.045	.056	.060	.060	.060	.058	.063	.060	.053	.051	.048	.048	.035	.028	.023	.028	.045 24
8	.029	.029	.030	.034	.029	.023	.028	.034	.048	.061	.064	.058	.058	.060	.070	.065	.065	.063	.061	.055	.040	.030	.035	.039	.044 24
9	.035	.033	.018	.029	.033	.028	.026	.041	.051	.060	.061	.060	.058	.056	.056	.058	.064	.064	.063	.046	.029	.025	.040	.041	.045 24
10	.040	.040	.045	.045	.045	.034	.033	.040	.054	.055	.058	.058	.061	.045	.093	.070	.071	.070	.057	.050	.052	.048	.030	.028	.052 24
11	.023	.016	.020	.023	.018	.012	.010	.034	.044	.040		.045	.054	.058	.056	.050	.033	.030	.030	.028	.030	.030	.030	.028	.032 23
12	.025	.025	.025	.025	.020	.019	.022	.022	.025	.027	.040	.049	.050	.051	.054	.054	.053	.053	.051	.044	.034	.017	.020	.011	.034 24
13	.004	.004	.002	.002	.002	.004	.009	.020	.033	.046	.040	.040	.043	.033	.038	.045	.046	.051	.041	.034	.025	.014	.009	.010	.025 24
14	.015	.010	.009	.005	.001	.001	.003	.013	.023	.042	.058	.078	.088	.094	.091	.083	.061	.059	.038	.045	.048	.038	.033	.023	.040 24
15	.014	.009	.012	.013	.009	.006	.005	.015	.020	.035	.044	.081	.083	.081	.076	.075	.069	.060	.055	.058	.038	.036	.035	.040	.041 24
16	.034	.028	.020	.020	.015	.014	.012	.017	.025	.036	.049	.040	.073	.075	.083	.075	.060	.060	.051	.030	.040	.033	.030	.025	.040 24
17	.022	.027	.018	.025	.039	.031	.025	.020	.022	.024	.025	.025	.027	.032	.038	.043	.041	.042	.040	.033	.030	.018	.014	.025	.029 24
18	.030	.026	.025	.023	.018	.006	.005	.020	.038	.067	.075	.073	.068	.073	.068	.068	.056	.053	.050	.045	.040	.036	.033	.033	.043 24
19	.031	.033	.032	.025	.021	.019	.019	.014	.015	.015	.022	.027	.022	.032	.041	.044	.049	.041	.037	.033	.033	.012	.007	.004	.026 24
20	.013	.019	.014	.010	.004	.015	.025	.031	.035	.030	.058	.078	.076	.085	.095	.103	.102	.085	.058	.038	.025	.008	.000	.002	.042 24
21	.000	.001	.006	.007	.001	.001	.003	.020	.033	.045	.050	.058	.059	.060	.057	.055	.054	.055	.045	.015	.002	.002	.007	.005	.027 24
22	.004	.003	.004	.003	.003	.000	.000	.012	.025	.065	.115	.102	.101	.090	.086	.080	.070	.065	.057	.043	.032	.027	.026	.013	.043 24
23	.010	.043	.050	.048	.040	.020	.014	.021	.033	.045	.058	.056	.048	.068	.081	.095	.103	.108	.093	.075	.055	.038	.026	.013	.052 24
24	.013	.027	.025	.023	.023	.019	.015	.021	.026	.047	.059	.073	.078	.080	.075	.072	.076	.071	.043	.054	.044	.033	.029	.018	.044 24
25	.021	.021	.019	.023	.021	.019	.026	.035	.050	.053	.058	.065	.064	.058	.057	.057	.054	.050		.042	.034			.038	.041 21
26	.021	.029	.034	.039	.041	.035	.029	.030	.042	.051	.054	.052	.052	.052	.053	.057	.061	.054	.044	.037	.034	.029	.030	.023	.041 24
27	.030	.036	.036	.027	.028	.028	.026	.025	.030	.036	.039	.042	.042	.042	.042	.042	.040	.040	.038	.038	.042	.036	.037	.027	.035 24
28	.026	.026	.023	.022	.019	.019	.017	.022	.035	.048	.042	.044	.041	.036	.030	.031	.032	.030	.026	.027	.028	.028	.028	.030	.030 24
29	.028	.028	.024	.023	.023	.020	.018	.015	.015	.014	.017	.016	.027	.037	.046	.041	.043	.059	.038	.018	.013	.008	.009	.000	.024 24
30	.000	.000	.000	.000	.000	.000	.003	.009	.019	.046	.056	.058	.054	.049	.047	.052	.047	.040	.036	.020	.019	.022	.020	.031	.026 24
31	.030	.022	.023	.022	.016	.012	.016	.029	.036	.042	.046	.047	.049	.031	.050	.048	.049	.047	.043	.037	.028	.013	.012	.003	.031 24
AVG	.023	.025	.024	.024	.022	.018	.017	.024	.033	.044	.054	.059	.062	.063	.065	.064	.061	.059	.051	.042	.036	.027	.025	.024	.040
NO.	31	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	30	31	31	30	30	31	740
MAX	.070	.064	.060	.056	.051	.043	.039	.041	.054	.075	.115	.102	.107	.135	.100	.103	.103	.108	.093	.075	.069	.055	.069	.073	.135

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020990A4051

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.000	.000	.002	.002	.004	.028	.029	.027	.032	.040	.052	.064	.064	.061	.052	.050	.046	.037	.027	.013	.008	.005	.003	.003	.027	24
2	.003	.003	.003	.003	.003	.003	.003	.008	.032	.059	.069	.078	.094	.088	.078	.061	.059	.048	.037	.018	.013	.004	.003	.003	.032	24
3	.004	.006	.005	.004	.003	.003	.003	.008	.028	.064	.085	.080	.093	.117	.098	.074	.061	.056	.050	.044	.042	.028	.011	.006	.041	24
4	.009	.005	.006	.008	.005	.004	.008	.022	.037	.075	.078	.089	.087	.070	.061	.055	.052	.061	.046	.043	.044	.034	.035	.046	.041	24
5	.042	.042	.042	.037	.030	.028	.022	.027	.028	.030	.038	.044	.052	.052	.054	.044	.046	.044	.035	.028	.023	.017	.024	.030	.036	24
6	.032	.028	.023	.023	.023	.018	.013	.018	.028	.041	.056	.054	.059	.061	.066	.064	.065	.054	.037	.016	.019	.030	.027	.025	.037	24
7	.021	.020	.018	.016	.011	.006	.006	.015	.032	.045	.056	.064	.071	.080	.090	.083	.080	.075	.052	.020	.008	.022	.023	.017	.039	24
8	.008	.008	.011	.008	.007	.004	.004	.004	.020	.056	.071	.071	.074	.080	.078	.067	.059	.047	.037	.028	.016	.027	.028	.030	.035	24
9	.036	.035	.031	.025	.019		.011	.014	.030	.044	.053	.057	.052	.044	.047	.045	.037	.030	.031	.031	.028	.027	.028	.027	.034	23
10	.028	.028	.028	.028	.027	.026	.023	.025	.023	.027	.030	.047	.050	.051	.055	.057	.055	.050							.037	18
11				.009	.013	.018	.020	.025	.030	.046	.049	.044	.040	.042	.051	.053	.054	.054	.049	.041	.035	.032			.037	19
12	.037	.042	.037	.038	.037	.030	.025	.030	.042	.056	.054	.056	.052	.050	.046	.044	.037	.039	.036	.035	.022	.025	.029	.032	.039	24
13	.027	.029	.025	.024	.017	.016	.013	.013	.016	.028	.024	.030	.031	.028	.031	.034	.035	.042	.041	.039	.033	.031	.030	.030	.028	24
14				.024	.023		.022	.022					.018	.020	.022	.023	.026	.023	.023	.023	.023	.022	.020	.020	.022	16
15	.018	.018	.018	.018	.018	.016	.016	.013	.013	.013	.028	.030	.033	.038	.039	.046	.055	.039	.028	.025	.015	.011	.016	.020	.024	24
16	.021	.028	.031	.031	.030	.027	.019	.011	.020	.029	.030	.045	.062	.068	.069	.071	.068	.065	.055	.041	.034	.030	.033	.035	.040	24
17	.041	.040	.036	.038	.036	.032	.022	.026	.035	.043	.047	.048	.051	.054	.055	.053	.054	.050	.049	.031	.030	.026	.030	.030	.040	24
18	.027	.025	.015	.021	.024	.022	.021	.023	.021	.027	.030	.032	.043	.046	.050	.051	.053	.060	.047	.036	.033	.023	.027	.026	.033	24
19	.029	.025	.021	.023	.020	.017	.010	.020	.023	.028	.032	.036	.034	.035	.037	.038	.037	.031	.018	.008	.004	.007	.007	.004	.023	24
20	.005	.005	.005	.004	.004	.004	.004	.005	.014	.025	.043	.043	.048	.042	.049	.048	.045	.043	.029	.032	.030	.028	.036	.038	.026	24
21	.037	.037	.036	.041	.034	.033	.026	.026	.040	.046	.052	.054	.058	.057	.056	.057	.061	.061	.057	.055	.063	.069	.065	.057	.049	24
22	.052	.047	.042	.043	.042	.044	.030	.031	.038	.057	.070	.075	.076	.073	.069	.061	.060	.071	.074	.068	.044	.049	.064	.071	.057	24
23	.047	.061	.061	.059	.052	.043	.035	.031	.036	.037	.037	.034	.034	.027	.028	.033	.037	.039	.032	.017	.016	.018	.018	.022	.036	24
24	.027	.024	.028	.034	.032	.027	.025	.023	.029	.032	.037	.040	.042	.047	.050	.048	.047	.035	.010	.008	.008	.008	.007	.005	.028	24
25	.001	.003	.002	.001	.001	.001	.001	.003	.015	.029	.046	.058	.065	.068	.068	.070	.071	.058	.047	.043	.046	.045	.036	.027	.034	24
26	.027	.028	.023	.021	.016	.011	.008	.011	.019	.026	.039		.052	.052	.051	.051	.047	.039	.027	.015	.008	.016	.020	.028	.028	23
27	.031	.032	.027	.019	.020	.032	.027	.028	.029	.037	.042	.052	.060	.052	.055	.055	.051	.044	.039	.040	.035	.032	.031	.029	.037	24
28	.025	.021	.020	.016	.015	.011	.008	.008	.022	.028	.029	.029	.028	.028	.028	.027	.030	.037	.038	.034	.032	.028	.027	.024	.025	24
29	.027	.024	.022	.018	.016	.014	.007	.009	.013	.016	.023	.032	.044	.054	.060	.058	.054	.044	.033	.032	.029	.022	.011	.014	.028	24
30	.010	.007	.014	.012	.013	.008	.006	.008	.015	.023	.029	.042	.047	.052	.052	.053	.052	.056	.051	.033	.028	.025	.027	.023	.029	24
AVG	.025	.024	.023	.022	.020	.019	.016	.018	.026	.038	.046	.052	.053	.055	.055	.053	.051	.048	.039	.031	.027	.024	.026	.026	.034	
NO.	28	28	28	30	30	28	30	30	29	29	29	28	30	30	30	30	30	30	29	29	29	29	28	28		699
MAX	.047	.061	.061	.059	.052	.044	.035	.031	.042	.075	.095	.089	.094	.117	.098	.083	.080	.075	.074	.068	.064	.069	.065	.071	.117	

34

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
44201|1
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A051)

1-HOUR DATA LISTING

JUL 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.056	.051	.051	.049	.049	.044	.049	.047	.047	.049	.063	.070	.075	.070	.075	.072	.077	.082		.056	.040	.035	.021	.017	.054	23
2	.019	.028	.042	.058	.035	.049	.035	.030	.035		.051	.058	.054	.047	.051	.051	.051	.046	.048	.052	.042	.040	.039	.044	.044	23
3	.047	.046	.042	.040	.037	.035	.039	.037	.043			.048	.058	.042	.048	.050	.049	.049	.047	.035	.028		.054	.048	.043	21
4	.040	.048	.046																						.045	3
5																										0
6																										
7																										
8																					.033	.041	.050	.056	.045	4
9																										0
10	.020	.018	.016	.013	.008	.006	.015	.027	.041	.050	.060	.061	.065	.071	.058	.056	.056	.055	.053	.052	.045	.034	.028	.025	.046	0
11	.039	.038	.036	.033	.029	.025	.022	.022	.028	.034	.036	.049	.052	.051	.042	.062	.058	.057	.055	.046	.039	.028	.028	.031	.039	10
12	.033	.030	.027	.026	.025	.021	.019	.018	.023	.030	.038	.043	.048	.047	.046			.048	.050	.051	.058	.060	.052	.041	.041	24
13	.024	.023	.018	.036	.021	.021	.018	.021	.027	.035	.035	.032	.038	.032	.039			.045	.043	.035	.037	.042	.037	.026	.034	22
14	.005	.002	.001	.000	.000	.000	.007	.018	.035	.040	.043	.039	.043	.048	.054	.056		.050	.038	.021	.011	.010	.008	.007	.025	22
15	.014	.010	.007	.005	.004	.000	.006	.022	.045	.051	.052	.057	.066	.072	.076	.077		.054	.056	.049	.050		.028	.018	.029	22
16	.023	.016	.013	.028	.018	.016	.016			.056	.066	.063	.066	.073	.091	.091	.078	.071	.054	.052	.038	.031	.028	.027	.020	.035	22
17	.017	.019	.012	.010	.008	.004	.018	.039	.049	.051	.051	.055	.058	.058	.056	.056	.057	.060	.049	.033	.020	.025	.026	.023	.036	23
18	.025	.033	.028	.023	.023	.018	.024	.033	.045	.046	.046	.048	.049	.049	.051	.047		.047	.043	.035	.021	.015	.013	.012	.034	24
19	.008		.011	.026	.028	.021	.013	.031	.043	.050	.064	.068	.064	.063	.046	.047	.067	.063	.054	.046	.052	.042	.037	.039	.045	23
20	.035	.031	.023			.004	.011	.025	.043	.057	.050	.055	.057	.057	.058	.056	.056	.050	.027	.031	.031	.024	.025	.025	.038	22
21	.020		.038	.032	.023	.017	.020	.034	.044	.052	.060	.064	.069	.080	.092	.065			.027	.018	.016	.014	.012	.009	.038	21
22	.006		.017	.015	.016	.028	.038	.044	.051	.055	.059	.064	.070	.068	.067	.066	.062	.049	.043	.056	.058	.045	.027	.032	.047	23
23	.023	.013	.010	.009	.006	.004	.007	.020	.038	.058	.091	.080	.091	.072	.073	.047	.067	.063	.048	.036	.056	.048	.035	.019	.042	24
24	.026	.031	.023	.025	.032	.032	.035	.038	.046	.059	.068	.071	.073	.070	.062	.065	.062	.061	.091	.032	.036	.052	.050	.047	.049	24
25	.050	.056	.057	.055	.050	.051	.042	.047	.055		.068	.072	.072	.075	.070	.068	.070	.075	.084	.085	.078	.068	.061	.054	.064	23
26	.048	.046	.045	.044	.039	.036	.035	.042	.047	.047	.044	.045	.058	.052	.054	.054	.052	.051	.050	.047	.032	.029	.027	.026	.043	24
27	.022	.020	.019	.017	.016	.017	.019	.020	.021	.022	.026	.031	.037	.042	.045	.045	.045	.045	.046	.041	.040	.040	.039	.034	.031	24
28	.029	.024	.024	.017	.011	.007	.011	.032	.038	.047	.052	.048	.081	.081	.076	.067	.064	.067	.045	.053	.035	.028	.021	.043	.040	24
29	.020	.014	.015	.014	.013	.012	.009	.031	.045	.052	.057	.062	.062	.061	.060	.056	.065	.065	.062	.052	.048	.041	.043	.040	.042	24
30	.031	.024	.023	.021	.019	.017	.024	.031	.040	.049	.055	.061	.065	.066	.065	.064	.065	.067	.066	.054	.047	.052	.044	.041	.045	24
31	.042	.037	.040	.024	.016	.015	.020	.021	.029	.042	.050	.052	.054	.052	.050	.050	.042	.037	.036	.038	.032	.033	.022	.017	.035	24
AVG	.029	.029	.026	.024	.022	.020	.022	.030	.040	.046	.054	.056	.060	.060	.061	.061	.060	.057	.053	.044	.039	.037	.033	.030	.041	
NO.	24	23	26	24	24	25	25	24	24	22	24	25	25	25	26	23	19	25	25	24	27	25	27	27		592
MAX	.056	.056	.057	.058	.050	.051	.049	.047	.055	.059	.091	.080	.091	.081	.092	.091	.078	.082	.091	.085	.078	.068	.061	.056	.092	

35

032070

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260096405)

AUG 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.012	.014	.011	.009	.006	.004	.002	.009	.025	.031	.050	.058	.046	.046	.043	.041	.041			.038	.025	.021	.013	.009	.025 22
2	.007	.006	.009	.010	.025	.038	.036	.041	.050	.044	.073	.075	.080	.081	.082	.081	.087	.100	.094	.068	.045	.033	.031	.027	.052 24
3	.018	.010	.009	.009	.011	.006	.005	.020	.024	.052	.056	.071	.091	.112	.105	.101	.102	.094	.092	.072	.058	.046	.051	.063	.053 24
4	.071	.065	.064	.062	.056	.055	.056	.045	.042	.044	.042	.059	.085	.095	.082	.081	.095	.092	.084	.085	.077	.071	.071	.076	.069 24
5	.074	.073	.067	.063	.057	.036	.041	.047	.062	.079	.080	.087	.104	.112	.120	.111	.107	.101	.084	.080	.075	.074	.075	.074	.078 24
6	.075	.071	.066	.060	.053	.046	.041	.041	.044	.045															.054 10
7																									0
8																									0
9																									0
10	.039	.033	.033	.042	.038	.031	.027		.050	.054	.057	.057	.057	.056	.048	.054	.054	.054	.055	.055	.043	.042	.045	.042	.049 9
																.095	.086	.069	.064	.056	.057	.052	.050	.038	.052 23
11	.029	.026	.023	.022	.018			.041	.044	.039	.041	.047	.055	.057	.057	.048	.030	.032	.031	.032	.031	.031	.032	.030	.034 22
12	.025	.025	.025	.024	.024	.024	.025	.025	.026	.032	.039	.047	.054	.056	.056	.055	.054	.051	.047	.044	.023	.015	.015	.011	.034 24
13	.008	.006	.006	.003	.004	.005	.006	.025	.038	.041	.038	.035	.039	.043	.044	.045	.046	.049	.049	.049	.033	.019	.018	.008	.010 .026 24
14	.018	.019	.017	.015	.010	.010	.011	.014	.019	.048	.056	.061	.066	.068	.076	.087	.075	.064	.045	.049	.049	.041	.025	.018	.040 24
15	.015	.009	.006	.005	.004	.010	.017	.020	.025	.037	.076	.084	.090	.096	.096	.091	.084	.073	.059	.050	.036	.044	.042	.044	.046 24
16	.031	.028	.030	.027	.024	.024	.019	.022	.031	.038	.048	.057	.066	.072	.071	.067	.064	.041	.056	.045	.029	.024	.027	.018	.041 24
17	.018	.025	.025	.030	.040	.029	.022	.025	.024	.024	.026	.029	.029	.034	.042	.046	.044	.042	.045	.038	.013	.026	.023	.022	.030 24
18	.033	.035	.034	.031	.025	.013	.010	.028	.038	.056	.073	.071	.065	.066	.057	.052	.050	.048	.050	.046	.044	.041	.039	.035	.043 24
19	.034	.033	.030	.026	.025	.025	.025	.023	.021	.025	.026	.027	.023	.035	.049	.048	.044	.041	.036	.027	.018	.021	.013	.014	.029 24
20	.009	.006	.005	.005	.005	.007	.019	.033	.034	.041	.047	.056	.061	.065	.075	.075	.077	.091	.066	.038	.029	.020	.016	.020	.037 24
21	.010	.009	.006	.005	.006	.006	.008	.016	.032	.040	.045	.050	.051	.051	.051	.051	.052	.045	.025	.014	.011	.014	.007	.005	.025 24
22	.003	.003	.002	.001	.001	.001	.001	.008	.027	.052	.068	.076	.078	.096	.098	.098	.068	.059	.053	.047	.035	.027	.023	.015	.039 24
23	.016	.044	.048	.045	.030	.024	.015	.023	.030	.040	.047	.050	.053	.054	.055	.057	.062	.060	.050	.033	.020	.010	.006	.006	.037 24
24	.010	.031	.031	.035	.030	.029	.028	.030	.035	.039	.047	.057	.065	.065	.061	.061	.060	.067	.060	.055	.053	.041	.039	.028	.044 24
25	.026	.019	.014	.010	.016	.016	.021	.028	.034	.040	.048	.055	.054	.054	.054	.051	.049	.049	.039	.039	.039	.039	.049	.044	.037 24
26	.040	.040	.041	.037	.038	.035	.031	.030	.033	.039	.045	.047	.050	.046	.046	.048	.048	.052	.057	.049	.035	.029	.031	.031	.041 24
27	.031	.034	.036	.032	.034	.030	.026	.025	.028	.032	.035	.036	.036	.036	.036	.034	.038		.035	.034	.035	.035	.035	.030	.033 23
28	.024	.025	.025	.027	.021	.020	.020	.019	.038	.043	.041	.042	.040	.035	.032	.030	.023	.027	.024	.025	.026	.026	.026	.028	.029 24
29	.027	.025	.025	.024	.021	.020	.019	.015	.015	.016	.019	.021	.025	.035	.036	.040		.044	.030	.014	.009	.005	.002	.002	.021 23
30	.000	.000	.004	.004	.003	.001	.005	.009	.021	.042	.045	.044	.043	.042	.041	.042	.044	.044	.038	.032	.023	.015	.007	.008	.023 24
31	.018	.021	.023	.026	.023	.024	.024	.030	.033	.038	.042	.044	.050	.053	.050	.045	.043	.043	.040	.035	.032	.024	.011	.008	.032 24
AVG	.026	.026	.026	.024	.023	.021	.021	.026	.033	.042	.049	.054	.058	.062	.062	.062	.061	.060	.053	.044	.035	.032	.029	.027	.040
NO.	28	28	28	28	28	27	27	27	28	28	27	27	27	27	27	28	27	24	27	28	28	28	28	28	660
MAX	.076	.073	.067	.063	.057	.055	.056	.047	.062	.079	.080	.087	.104	.112	.120	.111	.107	.101	.094	.085	.077	.074	.075	.076	.120

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A05)

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	.003	.001	.000	.001	.004	.032	.037	.034	.026	.039	.055	.064	.070	.058	.049	.051	.040	.043	.029	.013	.012	.003	.003	.000	.029	24
2	.000	.000	.000	.000	.000	.000	.000	.005	.022	.050	.058	.055	.055	.056	.059	.080	.069	.055	.040	.010	.015	.008	.002	.005	.027	24
3	.000	.000	.000	.000	.000	.000	.000	.003	.018	.047	.061	.060	.062	.059	.067	.062	.072	.053	.047	.033	.029	.025	.019	.013	.030	24
4	.005	.003	.000	.000	.004	.005	.004	.004	.028	.053	.070	.073	.068	.068	.056	.051	.056	.059	.052	.043	.045	.039	.035	.041	.036	24
5	.029	.043	.042	.039	.031	.029	.021	.024	.029	.032	.043	.049	.055	.053	.050	.048	.043	.040	.028	.024	.014	.008	.005	.015	.033	24
6	.028	.025	.015	.018	.020		.014	.021	.032	.048	.057	.054	.058	.045	.045	.041	.041	.055	.037	.015	.010	.038	.037	.025	.037	23
7	.014	.009	.004	.004	.002	.000	.003	.009	.017	.040	.054	.059	.067	.068	.069	.079	.075	.062	.053	.024	.015	.013	.011	.006	.032	24
8	.005	.002	.003	.001	.000	.000	.000	.001	.016	.049	.059	.059	.057	.055	.059	.059	.042	.051	.038	.038	.032	.037	.038	.034	.031	24
9	.032		.020	.015	.008	.006	.003	.013	.034	.049	.057	.055	.032	.035	.042	.042	.038	.034	.032	.030	.028	.025	.028	.030	.030	23
10	.032	.033	.034	.031	.034	.034	.035	.032	.030	.028	.031	.035	.045	.049	.049	.054	.050	.054	.047	.044	.041	.035	.031	.025	.038	24
11	.023	.021	.020	.015	.011	.012	.018		.030	.035	.027	.030	.034	.045	.054	.058	.059	.057	.049	.044	.043	.038	.035	.033	.034	23
12	.048	.049	.045	.041	.044	.045	.044	.053	.061	.062	.064	.063	.062	.059	.055	.052	.046	.043	.035	.044	.037	.039	.039	.039	.049	24
13	.035	.033	.030	.024	.020	.020	.019	.018	.025	.025	.027	.029	.028	.030	.033	.033	.037	.043	.043	.036	.025	.029	.033	.031	.029	24
14	.030	.028	.025	.024	.025	.025	.025	.028	.029	.029	.031	.034	.035	.039	.042	.042	.040	.039	.039	.038	.035	.035	.034	.030	.033	24
15	.029	.028	.029	.028	.027	.024	.024	.021	.021	.023	.021	.024	.031	.034	.039	.042	.043	.040	.038	.029	.022	.019	.017	.014	.028	24
16	.015	.018	.032	.030	.024	.029	.019	.025		.031	.033	.049	.047	.067	.068	.071	.071	.047	.042	.055	.050	.049	.049	.051	.045	23
17	.048	.045	.041	.034	.033	.030	.026	.029	.034	.048	.052	.054	.056	.058	.055	.055	.057	.055	.049	.048	.043	.038	.035	.034	.044	24
18	.036	.032	.022	.024	.024	.023	.023	.023	.025	.034	.041	.042	.041	.054	.055	.041	.047	.043	.048	.038	.035	.033	.022	.018	.037	24
19	.016	.013	.010	.017	.021	.020	.020	.021	.028	.032	.035	.037	.040	.039	.042	.043	.043	.038	.015	.010	.007	.006	.003	.004	.023	24
20	.004	.001	.001	.000	.000	.000	.000	.002	.011	.034	.057	.043	.047	.046	.041	.065	.055	.047	.036	.030	.018	.025	.030	.034	.027	24
21	.034	.044	.047	.049	.047	.049	.046	.046	.049	.056	.061	.065	.069	.070	.068	.068	.069	.072	.068	.072	.071	.080	.081	.069	.060	24
22	.047	.039	.046	.057	.059		.047	.040	.041	.070	.078	.084	.080	.074	.070	.065	.065	.062	.068	.068	.064	.053	.065	.079	.062	23
23	.079	.076	.069	.064	.061	.055	.054	.053	.047	.041	.038	.037	.036	.039	.032	.038	.043	.045	.047	.043	.039	.025	.029	.029	.044	24
24	.025	.020	.025	.035	.034	.036	.031	.029	.030	.025	.033	.039	.045	.049	.049	.050	.048	.037	.012	.007	.007	.008	.006	.002	.028	24
25	.000	.003	.005	.005	.004	.003	.001	.002	.014	.034	.059	.073	.076	.081	.085	.085	.080	.063	.029	.015	.044	.050	.038	.036	.037	24
26	.028	.032	.028	.018	.015	.018	.013	.013	.024	.034	.049	.055	.067	.062	.056	.051	.057	.044	.038	.031	.023	.030	.033	.043	.036	24
27	.044	.040	.029	.022	.025	.030	.031	.029	.032	.042	.048	.048	.056	.060	.064	.068	.064	.062	.059	.058	.050	.045	.043	.039	.045	24
28	.034	.033	.030	.028	.025	.023	.020	.018	.014	.030	.030	.029	.030	.030	.030	.029	.035	.041	.044	.040	.037	.037	.034	.030	.030	24
29	.033	.029	.025	.024	.020	.020	.019	.014	.013	.020	.023	.035	.059		.075	.078	.070	.068	.050	.043	.040	.036	.030	.028	.037	23
30	.019	.016	.013	.013	.013	.011	.007	.013	.020	.029	.040	.050	.056	.044	.059	.054	.059	.043	.029	.043	.039	.039	.039	.034	.037	24
AVG	.026	.025	.023	.022	.021	.020	.020	.022	.028	.039	.046	.050	.053	.054	.055	.057	.054	.052	.043	.034	.032	.031	.030	.029	.034	
NO.	30	29	30	30	30	28	30	29	29	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30		714
MAX	.079	.076	.069	.064	.061	.055	.054	.053	.061	.070	.078	.084	.080	.081	.085	.085	.080	.072	.074	.072	.071	.080	.081	.079	.086	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140950405)

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.034	.035	.036	.034	.026	.021	.019	.016	.019	.029	.039	.046	.046	.034	.033	.044	.046	.051	.041	.036	.021	.016	.016	.010	.031 24
2	.006	.015	.016	.010	.006	.007	.006	.010	.019	.029	.041	.046	.041	.042	.041	.041	.034		.031	.011	.010	.011	.015	.016	.022 23
3	.019	.017	.021	.016	.014	.011	.016	.021	.027	.031	.036	.035	.031	.040	.046	.046	.046	.042	.032	.024	.019	.016	.012	.013	.026 24
4	.011	.011	.013	.012	.012	.006	.007	.020	.034	.036		.051	.054	.061	.044			.054	.046	.029	.017	.014	.011	.007	.027 21
5	.004	.003	.004	.002	.001	.006	.007	.021	.039		.049	.051	.054	.059	.065	.075	.064			.039	.030	.024	.027	.027	.031 21
6	.025	.023	.013	.006	.008	.008	.016	.029	.041	.041	.043	.054	.070	.073	.075	.088	.083	.070	.053	.036	.026	.023	.018	.011	.039 24
7	.021	.016	.016	.023	.016	.017	.021	.028	.031		.051	.061	.080	.084	.080	.074	.069	.065	.049	.043	.029	.021	.020	.020	.041 23
8	.016	.015	.019	.028	.033	.033	.033	.030		.038	.053	.054	.054	.055	.053	.058	.057	.048	.048	.045	.042	.035	.032	.022	.039 23
9	.011	.016	.013	.015	.023	.024	.023	.023	.024	.031	.044	.059	.068	.069	.051	.052	.046	.044	.043	.035	.032	.025	.016	.014	.033 24
10	.008	.006	.005	.005	.001	.003	.008	.021		.065	.095	.100	.102	.105	.095	.086	.080	.073	.063	.055	.046	.041	.040	.031	.049 23
11	.026	.025	.025	.025	.023	.016	.015	.020		.047	.056	.069	.073	.070	.067	.064	.063	.061	.065	.064	.063	.055	.040	.033	.046 23
12	.030	.026	.021	.020	.016	.013	.010	.020	.028	.036	.044	.052	.061	.070	.076		.091	.076	.052	.041	.031	.021	.009	.015	.037 23
13	.011	.018	.016	.016	.013	.007	.006	.010	.030	.041	.050	.061	.067	.080	.085	.091			.042	.029	.015	.006	.001	.006	.034 22
14	.005	.015	.012	.006	.005			.021	.033		.102	.095	.098	.113	.108	.100	.094	.092	.075	.062	.046	.043	.042	.035	.057 21
15	.026	.018	.015	.015	.016	.015	.015	.025	.046		.103	.118	.120	.119	.103	.102	.103	.095	.079	.076	.061	.044	.030	.033	.060 23
16	.028	.031	.026	.026	.018	.016	.018	.031	.056		.123	.135	.112	.125	.115	.105	.090	.080	.073	.068	.056	.053	.038	.036	.063 23
17	.026	.028	.028	.026	.026	.016	.016	.041	.056	.075	.093	.090	.100	.100	.093	.090	.093	.085	.075	.051	.036	.023	.013	.008	.054 24
18	.003	.013	.013	.012	.010	.008	.013	.021	.046		.080	.085	.085	.090	.085	.085	.080	.075	.063	.046	.034	.030	.020	.017	.044 23
19	.030	.025	.025	.016	.013	.008	.016	.031	.050	.068	.093	.091	.090	.090	.090	.090	.085		.084	.073	.063	.051	.035	.031	.054 23
20	.043	.042	.033	.021	.024	.020	.016	.026	.036		.093	.110	.118	.116	.115	.090	.066	.061	.047	.041	.032	.029	.031	.029	.059 23
21	.023	.021	.024	.021	.017	.017	.016	.023	.027		.075	.115	.128	.135	.125	.085	.047	.042	.027	.015	.005	.007	.015	.012	.044 23
22	.011	.010	.026		.031	.028	.028	.037	.046	.046	.055	.061	.080	.104	.103	.090	.076	.069	.061	.056	.047	.041	.036	.035	.061 23
23	.020	.021		.015	.011	.013	.012	.016	.031	.042	.064	.088	.118	.105	.096	.096	.088	.085	.094	.071	.053	.044	.037	.029	.054 23
24	.011	.016	.016	.013	.016	.015	.017	.028	.049	.054	.065	.073	.095	.105	.105	.095	.093	.088	.084	.069	.054	.045	.036	.037	.053 24
25	.036	.036	.034		.033	.024	.028	.043	.055	.070	.075	.085	.098	.104	.115	.105	.099	.110	.105	.095	.080	.069	.056	.048	.069 23
26	.045	.043	.040		.034	.035	.036	.041	.042	.043	.042	.052	.049	.050	.055	.048	.046	.054	.054	.047	.028	.026	.025	.029	.042 23
27	.023	.018	.016	.014	.016	.016	.016	.016	.020	.029	.026	.028	.029	.037	.042	.045	.046	.044		.047	.045	.039	.035	.028	.029 23
28	.027	.023	.024		.026	.023	.026	.031	.035	.038	.046	.056	.073	.076	.091	.114	.115	.114	.111	.091	.079	.053	.043	.044	.059 23
29	.028	.025	.020		.045	.032	.017	.020	.046	.063	.074	.080	.085	.088	.095	.093	.085	.083	.078	.072			.049	.042	.058 21
30	.039	.034	.030	.023	.017	.017	.024	.034	.055	.070			.120	.117	.111	.107	.098	.093	.083	.065	.063	.048	.063	.062	.063 22
31	.053	.048	.044	.035	.033	.024	.025	.034	.042	.053	.064	.071	.074	.079	.076	.067	.056	.050	.044	.045	.039	.038	.029	.027	.048 24
AVG	.023	.022	.021	.018	.019	.017	.018	.025	.038	.047	.065	.073	.081	.084	.083	.080	.074	.071	.062	.051	.040	.034	.029	.026	.046
NO.	31	31	30	26	31	30	30	31	28	23	29	30	31	31	31	29	29	27	29	31	30	30	31	31	710
MAX	.053	.048	.044	.035	.045	.035	.036	.043	.056	.075	.123	.135	.128	.135	.125	.114	.115	.114	.111	.095	.080	.069	.063	.062	.135

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140994A05)

1-HOUR DATA LISTING

AUG 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.022	.024	.023	.019	.019	.014	.009	.017	.029		.045	.049	.054	.055	.054	.056	.049	.054	.054	.047	.033	.024	.023	.013	.034 23
2	.012	.006	.006	.006	.034	.025	.027	.027	.044		.074	.082	.082	.082	.081	.088	.083	.075	.061	.064	.054	.035	.039	.029	.048 23
3	.033	.029	.017	.015	.015	.019	.010	.019	.049		.049	.062	.091	.138	.151	.133	.109	.103	.089	.063	.061	.047	.049	.042	.059 23
4	.044	.052	.045	.044	.053	.054	.049	.045	.045		.048	.054	.060	.076	.075	.083	.078	.075	.069	.068	.054	.054	.054	.056	.058 23
5	.055	.059	.054	.045	.044	.034	.035	.039	.045		.098	.099	.103	.103	.103	.098	.094	.090	.071	.059	.054	.053	.054	.052	.047 23
6	.050	.053	.050	.045	.039	.034	.033	.035		.049	.059	.071	.074	.075	.076	.079	.074	.062	.054	.048	.048	.039	.037	.039	.053 23
7	.040	.045	.047	.044	.034	.032	.034	.038	.045	.055	.062	.072	.082	.084	.094	.089	.073	.061	.054	.047	.039	.033	.025	.025	.052 24
8	.032	.033	.032	.034	.034	.027	.025	.034	.049	.059	.065	.069	.083	.086	.089	.084	.075		.049	.049	.034	.029	.034	.029	.048 23
9	.032	.039	.037	.039	.040	.037	.034	.034	.054	.059	.065	.064	.066	.068	.068	.071	.073	.074		.049	.034	.030	.027	.029	.049 23
10	.035	.034	.034			.017	.017	.032	.053	.057	.059	.060	.062	.069	.079	.111	.073	.072	.069		.049	.053	.034	.032	.052 21
11	.024	.024	.024	.020	.023	.024	.029	.043	.044	.034	.044	.049	.055	.059	.059	.040	.029		.035	.035	.034	.034	.033	.032	.034 23
12	.029	.028	.027	.025	.024	.027	.029	.030	.033	.034	.039	.049	.054	.059	.059	.059	.059		.054	.053	.048	.037	.032	.029	.040 23
13	.020	.016	.013	.018	.015	.016	.017	.020	.027	.042	.040	.047	.044	.049	.050	.049	.058	.057	.045	.042	.035	.029	.027	.020	.033 24
14	.017	.012	.010	.008	.012	.009	.011	.019	.025		.057	.074	.082	.091	.094	.084	.071	.061	.054	.055	.054	.053	.042	.032	.045 23
15	.032	.024	.022	.016	.019	.018		.024	.027	.033	.039	.053	.064	.069	.065	.064	.058	.053	.048	.044	.039	.028	.023	.024	.038 23
16	.018	.012	.005	.009	.010	.008		.028	.019	.029	.042	.048	.061	.069	.067	.069	.064	.057	.042	.047	.039	.037	.029	.024	.035 23
17	.024	.022	.015	.025	.034	.020	.019	.024	.024	.024	.024	.025	.028	.033	.037	.035	.038	.039	.035	.034	.029	.027	.024	.024	.028 24
18	.024	.024	.024	.020	.022	.018		.022	.032	.054	.069	.064	.062	.059	.058	.055	.054	.052	.047	.044	.040	.039	.034	.030	.041 23
19	.027	.024	.024	.023	.023	.030	.033	.034	.039	.044	.044	.043	.040	.034	.047	.047	.048	.047	.039	.029	.025	.024	.019	.017	.033 24
20	.020	.029	.029	.024	.017	.017		.029	.042	.049	.050	.059	.078	.078	.077	.069	.064	.055	.049	.042	.034	.029	.018	.017	.042 23
21	.007	.005	.006	.004	.002	.000	.003	.010	.029	.039	.044	.047	.049	.049	.052	.050	.049	.048	.037	.032	.027	.022	.009	.022	.027 24
22	.015	.009	.001	.003	.002	.000	.001	.012	.037	.057	.066	.069	.079	.079	.069	.064	.066		.069	.054	.039	.029	.029	.024	.038 23
23	.037	.049	.049	.048	.039	.029	.028	.029	.034	.047	.060	.064	.072	.072	.072	.079	.079	.069		.058	.050	.039	.048	.042	.052 23
24	.033	.029	.029	.029	.027	.024	.024	.032	.042	.049	.059	.070	.078	.073	.073	.081	.080	.071	.061	.059	.057	.053	.037	.032	.050 24
25	.032	.030	.027	.024	.024	.019		.024	.047	.053	.054	.060	.062	.062	.059	.059	.053	.049	.044	.037	.042	.037	.032	.027	.042 23
26	.026	.030	.029	.033	.034	.032	.027	.027	.032	.041	.049	.054	.056	.068	.074	.074	.074	.064	.054	.042	.035	.028	.032	.032	.044 24
27	.027	.024	.029	.032	.030	.029	.025				.048	.052	.054	.049	.049	.049	.043	.038	.034	.033	.034	.038	.034	.029	.037 21
28	.027	.024	.022	.019	.019	.019	.019	.017	.039	.042	.047	.049	.042	.037	.030	.029	.034	.029	.029	.024	.024	.025	.029	.029	.029 24
29	.024	.023	.023	.023	.020	.018	.015	.014	.015	.015	.017	.023	.027	.029	.039	.042	.046	.048	.037	.039	.029	.018	.011	.014	.025 24
30	.009	.010	.008	.007	.009	.005	.009	.014	.015	.035	.052	.064	.066	.061	.052	.049	.043	.037	.035	.028	.025	.022	.019	.017	.029 24
31	.017	.017	.014	.012	.010	.012	.014	.022	.029	.044	.049	.049	.053	.059	.055	.048	.042	.044	.037	.029	.024	.017	.010	.009	.029 24
AVG	.029	.027	.025	.024	.024	.021	.022	.026	.036	.043	.052	.058	.063	.065	.067	.067	.062	.059	.051	.045	.039	.034	.030	.028	.042
NO.	31	31	31	30	30	31	26	30	29	29	31	31	31	31	31	31	31	27	29	30	31	31	31	31	720
MAX	.059	.059	.054	.049	.053	.054	.049	.045	.054	.059	.098	.099	.103	.138	.151	.133	.109	.103	.089	.068	.061	.054	.054	.056	.151

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140994051

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.006	.009	.005	.004	.015	.033	.034	.033	.032	.032	.048	.059	.072	.081	.050	.047	.043	.037	.030	.023	.018	.017	.018	.009	.031 24
2	.012	.009	.008	.007	.003	.004	.003	.012	.027	.042	.056	.091	.094	.090	.074	.047	.044	.052	.039	.020	.024	.016	.011	.012	.036 24
3	.012	.011	.010	.013	.012	.009	.008	.015	.025	.045	.056	.098	.098	.126	.118	.096	.083	.069	.059	.057	.048	.030	.032	.029	.049 24
4	.015	.017	.013	.012	.012	.009	.008	.019	.042	.059	.056	.091	.082	.083	.064	.053	.049	.044	.044	.042	.049	.048	.043	.039	.043 24
5	.040	.042	.037	.034	.027	.023	.024	.022	.020	.024	.029	.037	.043	.043	.039	.042	.047	.032	.038	.029	.028	.027	.029	.024	.033 24
6	.028	.030	.019	.020	.018	.014	.014	.017	.022	.037	.044	.049	.053	.059	.059	.057	.052	.044	.040	.030	.032	.030	.032	.025	.034 24
7	.024	.023	.017	.014	.015	.017	.018	.017	.025	.043	.054	.064	.063	.066	.084	.076	.078	.074	.057	.044	.034	.034	.033		.042 23
8				.013	.010	.014	.007	.010	.024	.039	.049	.066	.074	.085	.078	.069	.060	.048	.039	.032	.024	.027	.024	.021	.040 21
9	.020	.021	.019	.017	.010	.010	.012	.014	.028	.043	.056	.043	.027	.044	.045	.042	.036	.036	.036	.035	.030	.026	.026	.025	.029 24
10	.024	.021	.024	.026	.026	.029	.029	.026	.030	.034	.041	.044	.047	.051	.051	.051	.052	.049	.044	.040	.036	.029	.026	.025	.036 24
11	.024	.020	.019	.020	.021	.020	.031	.034	.030	.040	.036	.034	.040	.041	.050	.051	.051	.046	.041	.040	.036	.036	.041	.044	.035 24
12	.034	.036	.035	.034	.032	.031	.031	.034	.042	.041	.064	.070	.070	.065	.041	.056	.046	.032	.034	.039	.037	.035	.036	.036	.044 24
13	.033	.031	.031	.030	.027	.021	.017	.019	.026	.031	.032		.034	.034	.036	.039	.045	.050	.048	.048	.039	.035	.031	.031	.033 23
14	.031	.031	.031	.030	.029	.031	.031	.031	.031	.031	.032	.031	.036	.037	.040	.040	.036	.036	.036	.034	.036	.031	.031	.031	.033 24
15	.024	.024	.024	.024	.024	.024	.025	.021	.022	.021	.022	.026	.029	.030	.031	.034	.039	.042	.036	.029	.026	.024	.021	.021	.027 24
16	.018	.022	.023	.019	.019	.021	.016	.024	.041	.035	.040	.045	.056	.045	.045	.068	.065	.055	.051	.043	.036	.035	.037	.041	.039 24
17	.040	.037	.034	.027	.026	.023	.020	.022	.030	.041	.048	.051	.056	.058	.059	.054	.051	.043	.034	.028	.027	.025	.023	.023	.037 24
18	.024	.028	.026	.024	.021	.021	.019	.020	.024	.027	.034	.041	.050	.051	.056	.056	.046	.043	.037	.036	.035	.034	.031	.030	.036 24
19	.029	.030	.028	.027	.023	.020	.018	.021	.027	.033	.037	.040	.045	.049	.042	.046	.046	.045	.036	.031	.025	.021	.016	.007	.031 24
20	.011	.007	.007	.003	.001	.002	.001	.006	.022	.032	.041	.049	.051	.051	.050	.054	.053	.057	.050	.041	.039	.033	.031	.037	.030 24
21	.034	.035	.033	.037	.037	.035	.031	.032	.040	.046	.050	.056	.056		.047	.044	.047	.047	.041	.063	.071	.070	.041	.058	.051 23
22	.054	.051	.046	.044	.040	.050	.063	.050	.046	.066	.069	.081	.084	.081	.076	.070	.074	.084	.085	.076	.063	.060	.041	.065	.064 24
23	.048	.044	.041	.054	.055	.051	.046	.043	.041	.044	.040	.041	.039	.037	.039	.038	.043	.042	.031	.026	.026	.026	.026	.027	.042 24
24	.029	.031	.039	.043	.040	.036	.032	.032	.034	.040	.041	.044	.044	.049	.046	.044	.047	.044	.027	.029	.028	.026	.029	.018	.036 24
25	.014	.016	.014	.011	.011	.011	.009	.011	.016	.031	.049	.062	.071	.074	.076	.077	.074	.074	.058	.055	.041	.041	.039	.037	.041 24
26	.036	.031	.031	.029	.028	.026	.025	.026	.031	.028	.044	.056	.061	.061	.061	.060	.055	.041	.031	.026	.026	.024	.027	.033	.037 24
27	.029	.025	.023	.024	.037	.035	.038	.039	.041	.039	.044	.047	.052	.057	.041	.060	.061	.054	.050	.051	.046	.048	.040	.038	.043 24
28	.038	.031	.029	.027	.026	.026	.026	.026	.025	.032	.039	.036	.031	.037	.036	.041	.038	.036	.039	.041	.038	.041	.039	.037	.039 24
29	.030	.033	.032	.033	.032	.027	.029	.021	.024	.023	.025	.030	.038	.049	.056	.055	.053	.044	.034	.029	.030	.028	.021	.018	.033 24
30	.012	.012	.018	.016	.018	.016	.016	.016		.023	.031	.044	.051	.054	.054	.052	.054	.058	.049	.032	.031	.030	.029	.025	.032 23
AVG	.028	.027	.025	.024	.023	.023	.023	.024	.030	.037	.047	.053	.055	.058	.057	.055	.054	.050	.043	.038	.035	.033	.031	.030	.038
NO.	29	29	29	30	30	30	30	30	29	30	30	29	30	29	30	30	30	30	30	30	30	30	30	29	713
MAX	.048	.044	.041	.054	.055	.051	.063	.050	.046	.066	.069	.098	.095	.126	.118	.096	.083	.084	.085	.076	.071	.070	.041	.065	.126

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260903A051)

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.052	.041	.057	.050	.050	.043	.040	.038	.047	.057	.063	.068	.073	.075	.075	.073	.070	.073	.075	.066	.054	.045	.043	.040	.058	24
2	.034	.031	.031	.034	.031	.036	.034	.034	.043	.050	.057		.063	.059	.057	.057	.057	.057	.054	.052	.059	.057	.050	.050	.047	23
3	.057	.057	.054	.050	.047	.043	.040	.045	.050	.054	.059			.059	.059	.054	.059	.063	.061	.052	.050	.047	.043	.040	.051	22
4	.045																								.045	1
5																										0
6																										
7	.040	.040	.038	.033	.033	.030	.028	.035		.050	.050	.050	.055	.058	.058	.055	.063	.063	.071	.063	.055	.040	.038	.040	.054	8
8	.028	.025	.028	.030	.035	.035	.040	.040	.035	.042	.045	.048	.057	.053	.050	.048	.053	.053	.050	.045	.038	.038	.038	.035	.045	23
9	.010	.010	.010	.017	.020	.017	.020	.025	.030	.035		.047	.048	.050	.048	.052	.050	.050	.050	.040	.035	.031	.026	.020	.032	23
10	.015	.015	.012	.011	.011	.005	.008	.024	.033	.043	.050	.055	.058	.059	.062	.057	.055	.054	.051	.046	.041	.035	.028	.020	.035	24
11	.033	.038	.034	.029	.026	.022	.018	.023		.037	.039	.043	.045	.048	.052	.051	.048	.050	.057	.062	.059	.059	.060	.057	.043	23
12	.045	.037	.030	.027	.024	.022	.023	.027			.050	.062	.063	.068	.067	.060	.052	.048	.042	.040	.036	.032	.032	.033	.047	22
13	.031	.032	.030	.027	.023	.017	.017	.022		.043	.043	.048	.048	.040	.039	.042	.041	.040	.037	.037	.030	.022	.022	.024	.033	23
14	.024	.023	.015	.014	.014	.008	.015	.028		.043	.045	.048	.050	.057	.060	.061	.060	.065	.069	.052	.047	.041	.036		.040	22
15				.023	.024	.019	.022	.035		.053	.056	.063	.068												.040	9
16																										
17																										0
18																										0
19				.043	.041	.046	.047	.052	.064	.072	.076	.087	.087	.089	.090	.095	.095	.095	.086	.073	.067	.067	.060	.055	.071	0
20	.049	.046		.035	.032	.036	.040	.052	.062	.068	.075	.089		.089	.089	.087	.089	.088	.077	.062	.040	.038	.033	.031	.059	21
21	.028	.035	.039	.033	.029	.023	.032	.042	.049	.059	.067	.056	.082	.081	.071	.047	.060	.052	.038	.031	.014	.025	.029	.007	.043	22
22	.021	.023	.029	.043	.048	.044	.045	.054	.066	.075	.081	.084	.086	.086	.087	.084	.086	.083	.080	.070	.063	.059	.051	.046	.062	24
23	.039	.033		.015	.016	.016	.015	.018	.034	.058	.071	.084	.093	.096	.088	.084	.087	.088	.081	.076	.080	.064	.055	.043	.058	24
24	.034	.037	.040	.034	.032	.033	.035	.054	.074	.087	.097	.104	.097	.092	.087	.080	.084	.085	.085	.066	.057	.058	.058	.055	.065	23
25	.058	.063	.066	.064	.056	.047	.049	.060	.070	.081	.092	.097	.102	.100	.106	.100	.095	.121	.123	.110	.094	.081	.074	.069	.082	24
26	.045	.041	.057	.056	.053	.050	.049	.054	.055	.045	.044	.054	.061	.067	.070	.067	.064	.067	.047	.038	.035	.034	.032	.030	.052	24
27	.032	.030	.029	.026	.024	.024	.024	.028	.033	.037	.046	.052	.060	.064	.069	.069	.063	.055	.059	.057	.053	.049	.039	.035	.044	24
28	.030	.026	.025	.024	.020	.019	.021	.050	.060	.069	.067	.072	.075	.075	.076	.077	.078	.078	.075	.061	.054	.078	.058	.038	.059	24
29	.025	.025	.031	.036	.039	.027	.020	.037	.060	.072	.081	.084	.084	.084	.085	.084	.085	.084	.081	.075	.069	.072	.069	.064	.061	24
30	.050	.043	.036	.036	.030	.029	.033	.043	.060	.075	.081	.090	.089	.090	.092			.093	.093	.088	.075	.070	.055	.051	.069	22
31	.054	.048	.047	.035	.025	.022	.023	.035	.051	.066	.073	.075	.078	.075	.070	.054	.044	.049	.043	.038	.038	.024	.025	.022	.046	24
AVG	.037	.036	.035	.033	.031	.029	.030	.038	.051	.057	.063	.068	.070	.071	.071	.067	.067	.069	.064	.058	.051	.048	.043	.038	.051	
NO.	24	23	21	25	25	25	25	25	19	24	24	23	23	24	24	23	24	25	25	25	25	25	25	24		575
MAX	.058	.063	.066	.064	.056	.050	.049	.060	.074	.087	.097	.104	.102	.100	.106	.100	.095	.121	.123	.110	.094	.081	.074	.069	.123	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(3722A0903A051)

OZONE
4920111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.019	.021	.020	.021	.021	.012	.006	.019	.034	.049	.060	.064	.073	.072	.069	.064	.066	.069	.065	.050	.044	.041	.035	.031	.043 24
2	.030	.021	.009	.049	.059	.046	.040	.054	.063	.066	.073	.086	.096	.096	.093	.090	.090	.089	.097	.099	.082	.069	.067	.075	.068 24
3	.079	.065	.049	.043	.034	.031	.025	.039	.048	.061	.070	.083	.094	.105	.108	.115	.121	.113	.105	.094	.080	.063	.055	.063	.072 24
4	.073	.076	.074	.072	.068	.069	.059	.048	.045	.045	.056	.073	.093	.111	.096	.095	.100		.079	.077	.074	.072	.071	.072	.074 23
5	.075	.069	.061	.056	.046	.039	.031	.048	.056	.067	.083	.099	.094	.098	.102	.108	.116	.110	.096	.080	.072	.069	.069	.071	.074 24
6	.069	.064	.058	.053	.046	.040	.039	.038	.040	.042	.058	.064	.071	.072	.075	.072	.069	.065	.065	.058	.056	.056	.055	.050	.057 24
7	.044	.051	.055	.051	.047	.043	.042	.046	.051	.058	.065	.067	.064	.069	.067	.062	.063	.071	.061	.056	.056	.060	.054	.041	.056 24
8	.036	.037	.042	.042	.039	.036	.037	.045	.052	.058	.064	.055	.062	.060	.060	.060	.063	.067	.070	.065	.066	.071	.063	.049	.055 24
9	.048	.046	.050	.044	.046	.044	.042	.046	.050	.059	.063	.065	.065	.065	.063	.065	.062	.064	.072	.061	.051	.044	.042	.042	.054 24
10	.042	.041	.040	.039	.029	.026	.029	.040	.050	.055	.062	.063	.063	.061	.066	.061	.086	.088	.070	.062	.057	.051	.047	.042	.053 24
11		.037	.035	.029	.026	.029	.038	.041	.043	.033	.036	.039	.049	.050	.046	.029	.031	.037	.037	.038	.040	.041	.037	.033	.037 23
12	.033	.030	.026	.024	.024	.025	.027	.024	.026	.031	.039	.050	.057	.056	.056	.054	.055	.055	.055	.048	.042	.040	.035	.029	.039 24
13	.017	.021	.023	.017	.018	.021	.026	.035	.044	.051	.053	.037	.043	.048	.054	.057	.060	.060	.058	.049	.036	.032	.026	.018	.037 24
14	.017	.018	.019	.016	.015	.013	.016	.018	.030	.051	.071	.073	.077	.080	.080	.081	.073	.065	.048	.056	.051	.051	.041	.036	.044 24
15	.027	.024	.022	.014	.012	.015	.021	.027	.034	.048	.067	.091	.106	.077	.075	.084	.103	.102	.084	.062	.048	.050	.038	.033	.062 24
16	.027	.027	.023	.020	.017	.015	.016	.018	.024	.036	.056	.071	.078	.082	.087	.072	.063	.067	.058	.053	.041	.032	.032	.027	.043 24
17	.031	.032	.036	.037	.030	.022	.024	.019	.019	.031	.031	.028	.036	.041	.050	.058	.062	.062	.061	.051	.042	.033	.027	.026	.037 24
18	.023	.023	.023	.024	.023	.020	.022	.027	.020	.058	.070	.074	.082	.077	.071	.068	.068	.061	.055	.048	.047	.045	.041	.041	.044 24
19	.036	.032	.028	.026	.028	.035	.036	.036	.037	.040	.041	.040	.039	.048	.052	.062	.065	.058	.045	.037	.035	.035	.030	.027	.039 24
20	.025	.025	.026	.022	.022	.027	.027	.037	.050	.053	.060	.060	.060	.058	.060	.068	.072	.074	.070	.073	.052	.040	.028	.025	.044 24
21	.023	.025	.021	.021	.020	.017	.015	.026	.041	.051	.057	.059	.062	.069	.069	.071	.072	.074	.068	.033	.021	.013	.006	.028	.040 24
22	.018	.009	.016	.016	.013	.012	.011	.027	.046	.068	.077	.085	.084	.084	.082	.093	.107	.093	.075	.066	.057	.044	.039	.028	.052 24
23	.052	.055	.049	.046	.038	.028	.031	.038	.042	.048	.057	.061	.062	.069	.066	.069	.070	.065	.058	.051	.047	.038	.033	.027	.050 24
24	.028	.026	.025	.026	.024	.025	.026	.035	.046	.055	.056	.060	.062	.066	.068	.067	.065	.072	.075	.067	.061	.057	.055	.045	.050 24
25	.037	.027	.022	.022	.025	.023	.019	.028	.045	.052	.054	.056	.055	.060	.060	.056	.056	.055	.055	.050	.050	.050	.055	.055	.044 24
26	.055	.052	.049	.047	.045	.040	.037	.036	.041	.048	.055	.054	.054	.057	.066	.063	.062	.063	.072	.067	.053	.044	.036	.036	.051 24
27	.037	.040	.045	.043	.040	.036	.032	.031	.035	.041	.045	.047	.044	.045	.045	.044	.047	.044	.045	.046	.041	.042	.038	.035	.041 24
28	.031	.030	.031	.030	.027	.025	.022	.026	.051	.051	.047	.046	.044	.049	.041	.034	.035		.027	.028	.030	.031	.030	.027	.035 23
29	.025	.027	.027	.028	.026	.024	.022	.020	.019	.019	.023	.029	.035	.037	.039	.039	.040	.041	.035	.027	.027	.027	.025	.021	.028 24
30	.024	.018	.011	.008	.010	.010	.010	.015	.024	.036	.042	.043	.044	.045	.045	.043	.040	.040	.045	.035	.027	.023	.019	.019	.028 24
31	.016	.015	.022	.025	.025	.025	.024	.025	.031	.037	.042	.045	.044	.046	.050	.054	.047	.041	.040	.034	.028	.024	.016	.016	.032 24
AVG	.037	.035	.033	.032	.030	.028	.027	.033	.040	.048	.056	.061	.064	.066	.066	.067	.068	.068	.063	.054	.049	.045	.040	.038	.048
NO.	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	29	31	31	31	31	31	31	741
MAX	.079	.076	.074	.072	.068	.069	.059	.054	.063	.068	.093	.099	.106	.111	.108	.115	.121	.113	.105	.099	.082	.072	.071	.075	.121

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A05)

OZONE
44201|1
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.015	.009	.006	.011	.035	.035	.031	.032	.036	.041	.051	.053	.060	.054	.046	.045	.046	.048	.043	.033	.025	.020	.016	.015	.034 24
2	.014	.011	.009	.009	.006	.004	.009	.018	.030	.045	.051	.056	.058	.057	.050	.049	.062	.082	.057	.045	.036	.036	.031	.025	.035 24
3	.026	.022	.020	.007	.007	.010	.005	.020	.034	.050	.060	.056	.055	.061	.066	.073	.071	.098	.077	.066	.056	.048	.037	.026	.044 24
4	.019	.018	.016	.016	.008	.005	.009	.020	.043	.059	.065	.060	.054	.051	.051	.056	.054	.048	.048	.045	.041	.038	.050	.039	.038 24
5	.035	.045	.051	.036	.030	.026	.029	.030	.031	.035	.037	.045	.053	.053	.054	.056	.054	.051	.042	.036	.032	.033	.031	.026	.040 24
6	.025	.024	.021	.016	.014	.013	.014	.017	.027	.040	.050	.053	.055	.060	.059	.059	.056	.052	.047	.031	.030	.035	.030	.029	.035 24
7	.021	.020	.020	.018	.015	.013	.014	.017	.029	.041	.061	.060	.062	.066	.066	.069	.074	.077	.067	.054	.036	.025	.011	.007	.039 24
8	.007	.011	.010	.006	.005	.010	.000	.021	.041	.051	.057	.055	.058	.060	.059	.058	.057	.058	.050	.043		.035	.033	.025	.035 23
9	.027	.026	.025	.023	.024	.015	.013	.016	.029	.035	.035	.026	.030	.035	.038	.040	.036	.035	.034	.031	.030	.028	.025	.024	.028 24
10	.025	.028	.029	.026	.025	.024	.021	.024	.030	.036	.040	.044	.049	.050	.050	.050	.049	.049	.045	.044	.040	.036	.031	.028	.036 24
11	.025	.024	.020	.019	.019	.017	.017	.016	.021	.030	.033	.031	.037	.049	.051	.061	.059	.057	.051	.042	.033	.030	.026	.031	.033 24
12	.037	.039	.044	.044	.047	.046	.050	.054	.055	.055	.054	.053	.053	.052	.049	.050	.050	.040	.034	.036	.030	.030	.030	.034	.044 24
13	.033	.029	.027	.031	.033	.029	.026	.031	.027	.025	.028	.025	.028	.033	.034	.038	.045	.043	.038	.034	.033	.035	.036	.035	.032 24
14	.033	.031	.030	.030	.029	.026	.025	.026	.026	.027	.033	.035	.037	.039	.040	.042	.040	.040	.041	.040	.039	.038	.035	.034	.034 24
15	.031	.030	.029	.028	.026	.025	.022	.018	.015	.023	.024	.024	.029	.038	.044	.046	.047	.044	.039	.036	.026	.021	.020	.021	.029 24
16	.016	.022	.027	.024	.031	.027	.031	.034	.049	.051	.050	.051	.062	.066	.068	.070	.070	.066	.060	.051	.052	.050	.057	.061	.048 24
17	.054	.048	.041	.038	.034	.029	.027	.033	.037	.044	.052	.057	.057	.059	.061	.060	.060	.060	.059	.054	.051	.049	.041	.035	.047 24
18	.030	.029	.027	.025	.022	.021	.019	.020	.025	.035	.042	.050	.056	.060	.065	.074	.067	.055	.044	.039	.035	.035	.031	.030	.039 24
19	.027	.024	.022	.023	.021	.017	.015	.023	.026	.030	.034	.035	.037	.039	.041	.042	.042	.037	.029	.010	.004	.011	.007	.004	.025 24
20	.002	.007	.004	.004	.002	.001	.001	.011	.025	.041	.048	.050	.053	.055	.069	.074	.071	.055	.046	.039	.029	.023	.025	.029	.032 24
21	.039	.046	.047	.047	.051	.056	.056	.051	.051	.054	.058	.060	.061	.062	.063	.068	.069	.069	.067	.069	.065	.069	.069	.069	.058 24
22	.062	.062	.060	.058	.056	.051	.046	.043	.051	.066	.075	.075	.075	.075	.071	.068	.069	.059	.055	.068	.067	.065	.077	.080	.064 24
23	.076	.071	.067	.065	.060	.057	.060	.052	.046	.042	.039	.036	.038	.037	.038	.035	.039	.044	.042	.044	.043	.037	.030	.026	.047 24
24	.024	.031	.037	.035	.035	.035	.032	.030	.035	.039	.042	.044	.048	.050	.051	.051	.052	.049	.039	.025	.023	.014	.010	.015	.035 24
25	.011	.016	.012	.011	.009	.006	.004	.008	.016	.038	.062	.070	.073	.075	.075	.075	.075	.067	.051	.048	.045	.041	.039	.036	.040 24
26	.035	.031	.028	.026	.023	.020	.019	.024	.035	.037	.051	.061	.060	.056	.055	.054	.053	.049	.045	.042	.042	.041	.040	.037	.040 24
27	.031	.029	.025	.023	.023	.030	.027	.033	.035	.039	.043	.050	.055		.067	.069	.061	.054	.047	.043	.045	.045	.041	.038	.041 23
28	.034	.031	.030	.028	.025	.025	.025	.023	.021	.023	.021	.024	.028	.031	.030	.031	.036	.038	.040	.039	.039	.035	.031	.030	.030 24
29	.024	.025	.029	.027	.026	.025	.024	.021	.020	.020	.025	.035	.049	.055	.065	.062	.056	.053	.044	.037	.034	.030	.030	.029	.035 24
30	.020	.018	.016	.014	.014	.014	.014	.015	.017	.029	.036	.046	.050	.054	.054	.060	.061	.064	.064	.049	.057	.042	.035	.031	.037 24
AVG	.029	.029	.028	.026	.025	.024	.023	.026	.032	.039	.045	.047	.051	.053	.054	.056	.056	.055	.048	.043	.039	.036	.033	.031	.039
NO.	30	30	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	29	30	30	30		718
MAX	.076	.071	.067	.065	.060	.057	.060	.054	.055	.066	.075	.075	.080	.075	.075	.075	.075	.098	.077	.069	.067	.069	.077	.080	.098

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A051)

OZONE
#420111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5																										0
6																										
7	.059	.058	.057	.047	.042	.047	.047	.044	.047	.050	.053		.059	.059	.060	.064	.074	.081	.067	.058	.058	.058	.057	.059	.063	11
8	.036	.036	.038	.045	.046	.047	.047	.049	.051	.052	.057	.058	.060	.067	.077	.086	.081	.069	.059	.048	.046	.044	.044	.038	.055	23
9	.037	.036	.032	.025	.032	.037	.036	.034	.035	.037	.046	.052	.059	.067	.070	.064	.059	.062	.062	.053	.049	.032	.034	.036	.045	24
10	.022	.021	.022	.016	.017	.020	.021	.028	.048	.058	.062		.075	.086	.096	.091	.086	.081	.067	.049	.043	.037	.037	.037	.049	23
11	.035	.031	.036	.023	.027	.028	.029	.031	.037	.041	.046	.063	.082	.071	.073		.051	.054	.058	.059	.057	.048	.051	.039	.046	23
12	.032	.035	.036	.035	.032	.032	.030	.029		.043	.049	.056		.061	.067	.065	.060	.054	.056	.046	.043	.046	.048	.045	.046	22
13	.034	.035	.029	.026	.027	.026	.020	.027		.045	.046	.048	.050	.055	.056	.074	.065	.057	.050	.045	.038	.031	.017	.012	.040	23
14	.021	.016	.018	.016	.015	.015	.017	.028	.048	.068	.057	.054	.057	.060	.047	.079		.084	.079	.056	.055	.046	.041	.036	.045	23
15	.038	.033	.026	.027	.027	.027	.027	.037	.062	.074	.076	.079	.089	.096	.089	.084	.096					.052	.046	.027	.055	20
16	.042	.044	.039	.034	.030	.027	.025	.032	.059	.069	.072	.069	.074	.088	.101	.089	.081		.064	.057	052	.049	.042	.030	.055	23
17	.030	.030	.027	.020	.027	.030	.034	.044	.057	.064	.064	.064	.067	.069	.076	.076	.074	.074	.067	.059	.047	.049	.047	.047	.052	24
18	.035	.034	.031	.029	.042	.027	.022	.038		.062	.061	.057	.058	.062	.069	.067	.067	.068	.058	.049	.033	.039	.026	.047	.047	23
19	.027	.022	.017	.027	.017	.015	.023	.042		.059	.072	.092	.091	.081	.076	.075	.076	.074	.068	.062	.064	.058	.051	.049	.054	23
20	.044	.037	.032	.031	.026	.022	.026	.032		.057	.085	.076	.075	.076	.085	.091	.068	.062	.055	.048	.045	.032	.028	.030	.051	23
21	.032	.036	.032	.018	.022	.022	.022	.032		.057	.069	.075	.084	.101	.089	.076	.076	.065	.057	.045	.034	.052	.055	.047	.052	23
22	.043		.051	.046	.037	.037	.039	.049	.056	.057	.062	.066	.068	.072	.071	.067	.066	.067	.062	.058	.053	.044	.040	.036	.054	23
23	.034		.027	.031	.031	.030	.027	.029	.043	.054	.066	.074	.075	.078	.075	.075	.068	.073	.075	.065	.056	.046	.040	.034	.052	23
24	.036	.031	.028	.022	.022	.018	.031	.042	.051	.046	.072	.076	.069	.066	.064	.065	.072	.068	.067	.063	.062	.046	.041	.036	.051	24
25	.038		.055	.052	.052	.040	.040	.052	.057	.065	.069	.076	.079	.078	.076	.084	.091	.089	.084	.072	.069	.054	.053	.047	.044	23
26	.047	.046		.042	.041	.037	.037	.040	.047	.046	.039	.047	.049	.055	.055	.054	.055	.054	.032	.032	.028	.027	.026	.027	.042	23
27	.027	.026	.025	.022	.020	.022	.022	.025		.028	.031	.037	.042	.045	.045	.046	.047	.048	.047	.045	.037	.028	.022	.025	.033	23
28	.017		.018	.017	.016	.017	.027	.036	.043	.047	.053	.059	.065	.067	.071	.076	.086			.081	.068	.064	.043	.039	.048	21
29	.030		.026	.052	.046	.038	.025	.027	.036	.052	.062	.076	.079	.068	.067	.067	.067	.064	.052	.039	.035	.045	.038	.032	.049	23
30	.026	.026	.020	.013	.012	.015	.020	.035	.043		.059	.067	.067	.069											.036	13
31																										
													.066	.062	.052	.044	.042	.041	.043	.036	.028	.030	.027	.043	11
AVG	.034	.033	.031	.030	.029	.028	.029	.034	.048	.054	.059	.065	.068	.070	.072	.072	.069	.064	.060	.054	.049	.044	.040	.036	.049	
NO.	24	19	23	24	24	24	24	24	17	23	24	22	23	25	25	24	24	22	23	24	24	25	25	25		561
MAX	.059	.058	.057	.052	.052	.047	.047	.052	.062	.074	.085	.092	.091	.101	.101	.091	.096	.088	.084	.081	.069	.064	.057	.059	.101	

012078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A051)

OZONE
44201|1
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.025	.020	.021	.022	.020	.020	.017	.018		.037	.045	.050	.052	.049	.048	.048	.047	.049	.045	.040	.031	.033	.020	.017	.034	23
2	.017	.010	.017	.032	.040	.034	.028	.040		.057	.057	.059	.062	.067	.067										.042	14
3										.045	.052	.065	.077	.099	.119	.108	.096	.091	.089	.077	.061	.052	.046	.037	.074	15
4	.044	.056	.062	.061	.053	.054	.051	.044		.037	.043	.055	.068	.080	.086	.089	.092	.089	.073	.064	.055	.053	.053	.056	.062	23
5	.060	.057	.053	.051	.049	.041	.035	.042		.089	.094	.091	.094	.096	.109	.104	.101	.094	.085	.066	.056	.053	.056	.059	.071	23
6	.061	.060	.060	.055	.050	.039	.041	.042	.043		.050	.060	.069	.069	.069	.070	.073	.068	.059	.049	.042	.041	.037	.034	.054	23
7	.043	.044	.044	.044	.044	.043	.039	.040	.048	.059	.054	.057	.058	.054	.059	.060	.061		.052	.048	.044	.037	.024	.020	.047	23
8	.026	.029	.032	.038	.038	.029	.033	.038	.048	.059	.059	.058	.054	.052	.059	.061	.067	.064	.061	.061	.055	.042	.033	.035	.048	24
9		.039	.038	.034	.029	.032	.028	.044	.049		.058	.058	.059	.058	.054	.054	.059	.059	.059	.059	.054	.044			.048	20
10	.042	.039	.034	.034	.034	.033	.029	.037	.048	.059	.059	.053	.059	.053	.052	.065	.079	.067	.069	.059	.049	.047	.039	.039	.048	24
11	.032	.025	.022	.020	.029	.032	.034	.042	.033		.039	.047	.049	.049	.042	.027	.024	.025	.029	.027	.029	.029	.029	.027	.032	23
12	.025	.024	.024	.024	.024	.024	.024	.024	.025		.034	.044	.054	.055	.054	.054	.052	.050	.049	.042	.039	.037	.038	.032	.037	23
13	.020	.028	.017	.020	.012	.011	.012	.018	.032	.039	.034	.034	.033	.039	.049	.052	.055	.052	.053	.042	.024	.017	.019	.009	.030	24
14	.010	.006	.005	.008	.006	.002	.006	.018	.025	.035	.059	.077	.093	.095	.091	.086	.065	.064	.059	.053	.053	.050	.044	.042	.044	24
15	.033	.025	.024	.017	.019	.019	.012	.022	.029	.044	.053	.062	.069	.071	.069	.062	.059	.059	.059	.045	.045	.035	.032	.039	.041	24
16	.039	.034	.034	.019	.018	.019	.010	.013		.034	.047	.054	.059	.063	.065	.072			.062	.049	.039	.035	.029	.024	.038	21
17	.025	.024	.023	.037	.025	.020	.022	.023	.029	.029	.028	.024	.032	.039	.045	.044	.045	.047	.043	.037	.034	.027	.020	.022	.031	24
18	.024	.023	.020	.022	.024	.022	.020	.022		.054	.069	.071	.066	.069	.061	.057	.057	.050	.048	.040	.035	.034	.033	.029	.041	23
19	.025	.023	.022	.024	.029	.029	.025	.033	.039	.039	.037	.044	.044	.042	.039	.042	.044	.037	.034	.024	.019	.020	.019	.011	.031	24
20	.009	.007	.012	.018	.019	.018	.017	.029	.049	.059	.059	.067	.066	.089	.099	.086	.086	.077	.062	.049	.047	.037	.027	.019	.045	24
21	.019	.022	.019	.019	.019	.017	.009	.024	.037	.047	.050	.053	.059	.052	.053	.059	.055	.054	.053	.037	.029	.030	.032	.033	.036	24
22	.034	.037	.028	.019	.013	.009	.007	.019	.027	.050	.062	.079	.099	.114	.091	.078	.071	.065	.060	.049	.044	.034	.019	.017	.047	24
23	.049	.047	.042	.037	.028	.024	.022	.029	.037	.044	.055	.062	.066	.068	.066	.063	.066	.068	.062	.052	.048	.045	.047	.030	.048	24
24	.024	.029	.027	.024	.023	.022	.023	.028	.040		.054	.059	.059	.059	.072	.067	.074	.071	.062	.048	.049	.045	.037	.032	.045	23
25	.028	.027	.018	.015	.019	.018	.017	.027	.049	.059	.063	.068	.072	.070	.066	.063	.059	.057	.048	.040	.040	.037	.032	.030	.042	24
26	.025	.032	.034	.034	.034	.033	.028	.032	.039	.047	.050	.052	.053	.054	.054	.054	.062	.054	.047	.037	.029	.024	.024	.029	.040	24
27	.029	.029	.034	.032	.028	.027	.024	.025	.029	.037	.042	.044	.047	.049	.047	.044	.044	.039	.035	.034	.032	.032	.029	.027	.035	24
28	.024	.024	.022	.019	.017	.015	.014	.032	.047	.043	.042	.049	.040	.037	.033	.030	.029	.025	.029	.024	.025	.027	.029	.024	.029	24
29	.020	.022	.024	.027	.020	.018	.017	.014	.014	.017	.022	.024	.027		.039	.042	.044	.042	.039	.029	.018	.015	.019	.014	.024	23
30	.012	.012	.014	.010	.005	.009	.007	.010	.014	.040	.054	.054	.050	.057	.057	.049	.049			.033	.028	.025	.023	.021	.029	22
31	.020	.019	.015	.013	.013	.011	.016	.026	.033	.038	.040			.048	.051	.055	.055	.045	.038	.033	.028	.023	.018	.010	.029	22
AVG	.029	.029	.028	.027	.026	.024	.022	.028	.036	.045	.050	.055	.059	.063	.063	.062	.061	.058	.053	.045	.039	.035	.031	.028	.042	
NO.	29	30	30	30	30	30	30	30	24	24	31	30	30	30	31	30	29	27	29	30	30	30	29	29		709
MAX	.061	.060	.062	.061	.053	.054	.051	.044	.049	.089	.094	.091	.099	.114	.119	.108	.101	.094	.089	.077	.061	.053	.056	.059	.119	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OZONE
42011
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A05)

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.010	.005	.005	.015	.033	.035	.031	.030	.033	.040	.049	.053	.058	.096	.080	.063	.055	.050	.035	.023	.015	.018	.010	.008	.037 24
2	.009	.004	.005	.003	.003	.003	.009	.011	.024	.053	.055	.059	.060	.083	.108	.083	.060	.055	.044	.040	.035	.029	.025	.025	.037 24
3	.020	.015	.025	.018	.015	.016	.013	.015	.028	.050	.075	.074	.068	.045	.069	.093	.088	.079	.069	.050	.038	.035	.039	.035	.045 24
4	.028	.026	.020	.015	.013	.019	.018	.028	.041	.059	.078	.080	.075	.063	.060	.060	.063	.058	.049	.050	.048	.038	.043	.041	.045 24
5	.041	.055	.043	.036	.040	.031	.029	.028	.033	.035	.035	.043	.055	.058	.058	.056	.054	.048	.034	.026	.030	.029	.030	.030	.040 24
6	.030	.028	.026	.025	.025	.021	.020	.019	.025	.040	.051	.044	.060	.060	.061	.063	.060	.058	.049	.048	.035	.033	.035	.034	.040 24
7	.035	.029	.023	.023	.024	.020	.020	.020	.035	.043	.064	.068	.078	.074	.079	.088	.085	.074	.065	.065	.058	.055	.050	.058	.051 24
8	.055	.043	.040	.033	.035	.028	.023	.020	.034	.055	.074	.088	.083	.085	.088	.095	.083	.060	.048	.040	.039	.038	.035	.030	.052 24
9	.029	.035	.035	.025	.024	.025	.020	.025	.038	.049	.050	.035		.038	.040	.040	.036	.035	.033	.028	.024	.018	.015	.015	.031 23
10	.018	.020	.025	.025			.023	.026	.030	.033	.040	.043	.044	.045	.045	.050	.050	.043	.041	.038	.035	.030	.029	.020	.034 22
11	.023	.019	.019	.016	.014	.015	.018	.025	.028	.031	.035	.034	.035	.040	.050	.054	.056	.058	.055	.050	.038	.033	.038	.039	.034 24
12	.038	.035	.034	.035	.033	.030	.029	.034	.043	.064	.060	.040	.055	.058	.055	.053	.051	.043	.040	.040	.037	.035	.037	.032	.043 24
13	.035	.030	.029	.033	.035	.030	.033	.030	.030	.030	.030	.031	.034	.035	.038	.034	.043	.048	.043	.038	.035	.033	.035	.031	.034 24
14	.030	.028	.026	.026	.026	.025	.026	.025	.026	.028	.030	.035	.036	.040	.041	.040	.040	.040	.039	.036	.036	.035	.035	.033	.033 24
15	.030	.030	.030	.030	.030	.028	.025	.025	.025	.025	.025	.025		.037	.036	.037	.042	.040	.036	.022	.019	.015	.013	.015	.028 23
16	.016	.018	.019	.020	.022	.033	.030	.038		.054	.050	.057	.068	.085	.084	.088	.082	.075	.072	.060	.038	.037	.034	.038	.049 23
17	.039	.041	.041	.033	.033	.029	.027	.027	.039	.046	.054	.055	.058	.063	.066	.065	.060	.058	.052	.041	.034	.027	.024	.021	.043 24
18	.022	.025	.023	.023	.020	.021	.025	.026	.030	.037	.045	.047	.050	.055	.061	.048	.074	.062	.048	.048	.045	.042	.039	.037	.040 24
19	.034	.034	.032	.029	.025	.021	.022	.024	.027	.032	.036	.039	.040	.041	.042	.044	.043	.039	.034	.030	.029	.026	.026	.026	.032 24
20	.021	.023	.014	.014	.009	.012	.004	.014	.023	.034	.042	.051	.058	.059	.059	.056	.059	.061	.054	.039	.039	.035	.033	.035	.035 24
21	.037	.035	.034	.036	.038	.035	.031	.032	.039	.050	.059	.064	.069	.065	.049	.070	.070	.067	.069	.055	.062	.049	.069	.064	.053 24
22	.054	.047	.041	.035	.031		.019	.028	.052	.068	.083	.094	.102	.101	.091	.080	.074	.080	.086	.078	.065	.055	.056	.062	.064 23
23	.044	.045	.042	.040	.038	.035	.032	.030	.047	.044	.042	.040	.042	.044	.038	.044	.047	.049	.044	.034	.023	.020	.021	.022	.044 24
24	.024	.035	.037	.037	.036	.034	.032	.032	.036	.038	.043	.046	.050	.052	.053	.055	.054	.044	.039	.036	.037	.035	.030	.029	.039 24
25	.023	.023	.020	.017	.018	.015	.010	.009	.014	.031	.057	.071	.075	.079	.084	.084	.089	.074	.064	.058	.051	.044	.041	.038	.046 24
26	.029	.032	.028	.028	.025	.028	.033	.033	.024	.034	.049	.055	.067	.062	.056	.051	.057	.044	.039	.031	.023	.030	.033	.043	.039 24
27	.035	.038	.028	.028	.035	.030	.031	.033	.039	.041	.047		.056	.065	.071	.067	.064	.064	.053	.043	.041	.042	.040	.035	.045 23
28	.030	.029	.029	.026	.025	.024	.021	.021	.023	.025	.026	.024	.033	.038	.035	.035	.032	.033	.025	.026	.028	.025	.032	.026	.028 24
29	.028	.032	.034	.030	.030	.028	.024	.027	.021	.025	.030	.050	.078	.073	.063	.045	.060	.050	.038	.032	.031	.029	.029	.020	.038 24
30	.016	.014	.012	.011	.015	.017	.015	.014	.017	.027	.039	.049	.055	.060	.064	.060	.063	.065	.062	.050	.036	.035	.031	.034	.036 24
AVG	.030	.030	.028	.026	.027	.025	.024	.026	.031	.041	.048	.053	.059	.061	.061	.062	.060	.055	.049	.042	.037	.034	.033	.033	.041
NO.	30	30	30	30	29	28	30	30	29	30	30	29	28	30	30	30	30	30	30	30	30	30	30	30	713
MAX	.064	.065	.062	.060	.058	.055	.052	.050	.052	.068	.083	.094	.102	.101	.108	.095	.089	.080	.086	.078	.065	.069	.069	.064	.108

SECTION 4.2

OZONE MEASUREMENTS AT THE TULSA CITY/COUNTY HEALTH DEPARTMENT SITES

(Neutral Buffered KI Calibration)

AIR QUALITY DATA REPORT

AGENCY: STATE

STATE: OKLAHOMA

PROJECT: SOURCE-ORIENTED AMBIENT SURV.

PARAMETER: OZONE, O3

UNITS: PARTS PER MILLION

MIN DET: .010 SAROAD KEY: 373000132F02

COLLECTION METHOD: INSTRUMENTAL

ANALYSIS METHOD: CHEMILUMINESCENCE

MONTH: JULY

SAMPLING INTERVAL: 01 HOURS

SITE: TULSA - APACHE STREET

YEAR: 1977

KEY-1: 373000132F02177 KEY-2: 070100 KEY-3: 4420111074 AREA: 3000 SITE: 132 UNITS CODE: 07 DECIMAL CODE: 4

	HOUR											
DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	.0485	.0459	.0418	.0500	.0434	.0408	.0367	.0281	.0357	.0408	.0357	
02	.0245	.0306	.0306	.0153	.0204	.0245	.0194	.0204	.0255	.0296	.0408	.0469
03	.0367	.0383	.0408	.0398	.0357	.0316	.0281	.0255	.0347	.0434	.0485	.0500
04	.0347	.0357	.0255	.0255	.0245	.0245	.0245	.0281	.0357	.0214	.0571	.0587
05	.0214	.0281	.0230	.0281	.0296	.0245	.0102	.0102	.0265	.0459	.0587	.0602
06	.0449	.0459	.0434	.0434	.0383	.0372	.0306	.0194	.0372	.0474	.0526	.0587
07												
08	.0128	.0434	.0357	.0255	.0265	.0408	.0459	.0449	.0398	.0469		.0663
09	.0434	.0306	.0306	.0281	.0265	.0230	.0230	.0245	.0255	.0245	.0367	.0689
10	.0316	.0306	.0163	.0143	.0255	.0245	.0230	.0281	.0408	.0536	.0638	.0816
11	.0459	.0459	.0408	.0383	.0367	.0255	.0153	.0102	.0214	.0357	.0459	.0536
12	.0689	.0673	.0347	.0332	.0316	.0153	.0051	.0061	.0179	.0306		.0469
13	.0255	.0281	.0408	.0449	.0153	.0051	.0061	.0128	.0128	.0255	.0459	.0536
14	.0316	.0332	.0255	.0163	.0128	.0112	.0092	.0051	.0179	.0383	.0622	.0704
15	.0383	.0367	.0347	.0194	.0128	.0245	.0143	.0204	.0367	.0561	.0724	.0878
16	.0571	.0510	.0536	.0536	.0449	.0449	.0255	.0357	.0469	.0673	.0918	.1020
17	.0602	.0561	.0561	.0449	.0383	.0418	.0459	.0520	.0622	.0663	.0842	.0929
18	.0316	.0332	.0357	.0383	.0357	.0153	.0112	.0051	.0306	.0571	.0551	.0724
19	.0367	.0485	.0459	.0434	.0459	.0408	.0316	.0204	.0398	.0510	.0673	.0893
20	.0561	.0561	.0536	.0500	.0408	.0408	.0296	.0230	.0357	.0485	.0638	.0765
21	.0459	.0459	.0510	.0500	.0449	.0408	.0179	.0077	.0255	.0398	.0561	.0689
22	.0143	.0128	.0128	.0214	.0194	.0459	.0500	.0510	.0571	.0740	.0816	.0908
23	.0367	.0357	.0281	.0163	.0194	.0163	.0061	.0153	.0245	.0571	.0867	.0929
24	.0500											
25	.0561	.0587	.0571	.0510	.0612	.0602	.0434	.0265	.0332	.0612	.0867	.0867
26	.0571	.0561	.0510	.0485	.0469	.0469	.0434	.0383	.0485	.0653	.0673	.0689
27	.0265	.0255	.0230	.0204	.0179	.0179	.0143	.0153	.0179	.0230	.0230	.0230
28	.0332	.0332	.0347	.0347	.0357	.0408	.0230	.0194	.0194	.0265	.0357	.0459
29	.0459	.0536	.0459	.0408	.0347	.0245	.0112	.0051	.0306	.0663	.1020	.1007
30	.0459	.0418	.0383	.0408	.0408	.0357	.0281	.0255	.0306	.0469	.0638	.0724
31	.0663	.0602	.0561	.0510	.0500	.0357	.0306	.0296	.0245	.0357	.0561	.0765
NO	30	29	29	29	29	29	29	29	29	29	27	28
MEAN	.0409	.0416	.0381	.0354	.0335	.0317	.0246	.0225	.0322	.0457	.0607	.0721
MAX	.0689	.0673	.0571	.0536	.0612	.0602	.0500	.0520	.0622	.0740	.1020	.1007

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	.0469	.0571	.0571	.0689	.0638	.0612	.0673	.0510	.0306	.0153	.0077	.0077	23	.0426	.0689
02	.0510	.0520	.0500	.0469	.0449	.0485	.0510	.0459	.0347	.0179	.0296	.0316	24	.0348	.0520
03	.0500	.0510	.0510	.0485	.0500	.0536	.0510	.0469	.0347	.0245	.0306	.0383	24	.0409	.0536
04	.0602	.0638	.0663	.0638	.0587	.0587	.0587	.0571	.0449	.0332	.0306	.0128	24	.0418	.0663
05	.0612	.0663	.0755	.0663	.0612	.0638	.0679	.0628	.0500	.0357	.0459	.0449	24	.0444	.0755
06	.0602												13	.0430	.0602
07			.0704	.0714	.0638	.0587	.0587	.0469	.0367	.0153	.0102	.0112	10	.0443	.0714
08	.0765	.0724	.0714	.0663	.0663	.0714	.0740	.0755	.0755	.0673	.0561	.0755	23	.0565	.0765
09	.0816	.0878	.0663	.0536	.0434	.0612	.0587	.0612	.0459	.0434	.0255	.0306	24	.0435	.0878
10	.0867	.0893	.0842	.0791	.0755	.0765	.0704	.0663	.0510	.0367	.0500	.0383	24	.0513	.0893
11	.0602	.0612	.0561	.0485	.0500	.0551	.0653	.0663	.0740	.0755	.0520	.0704	24	.0679	.0755
12	.0459	.0536	.0561	.0551	.0551	.0587	.0500	.0434	.0357	.0367	.0408	.0306	23	.0412	.0689
13	.0459	.0571	.0653	.0587	.0459	.0418	.0357	.0347	.0179	.0015	.0015	.0153	24	.0315	.0653
14	.0714	.0724	.0765	.0740	.0663	.0765	.0827	.0755	.0653	.0571	.0398	.0383	24	.0470	.0827
15	.0893	.0944	.0918	.0908	.0944	.0969	.0980	.0908	.0663	.0510	.0622	.0587	24	.0599	.0980
16	.1071	.1082	.0969	.0929	.0918	.0876	.0867	.0867	.0714	.0602	.0587	.0622	24	.0702	.1082
17	.0918	.0908	.0893	.0867	.0867	.0827	.0776	.0714	.0510	.0230	.0214	.0296	24	.0626	.0929
18	.0689		.0724	.0755	.0714	.0673	.0714	.0638	.0704	.0255	.0255	.0143	23	.0455	.0755
19	.0816	.0816	.0816	.0827	.0827	.0816	.0842	.0816	.0816	.0714	.0663	.0602	24	.0623	.0893
20	.0918	.0918	.0918	.0842	.0638	.0602	.0561	.0485	.0869	.0408	.0469	.0469	24	.0560	.0918
21	.0827	.0918	.0908	.0908	.0663	.0663	.0638	.0510	.0500	.0383	.0357	.0255	24	.0519	.0918
22	.1046	.1173	.1301	.1199	.1097	.0827	.0332	.0612	.0765	.0663	.0510	.0469	24	.0837	.1301
23	.1276	.1224	.1148	.1224	.1122	.1010	.1010	.0959	.0765	.0612	.0408	.0459	24	.0848	.1276
24	.0995	.0929	.0969	.1327	.1020	.0918	.0944	.0740	.0765	.0638	.0561	.0587	13	.0837	.1327
25	.0816		.0765	.0918	.0893	.0842	.0827	.1046	.1133	.0969	.0867	.0714	23	.0722	.1133
26	.0622	.0551	.0663	.0689	.0714	.0755	.0673	.0689	.0653	.0587	.0434	.0296	24	.0571	.0755
27	.0230	.0357	.0434	.0510	.0551	.0536	.0510	.0520	.0459	.0459	.0398	.0383	24	.0326	.0551
28	.0663	.1071	.1173	.1173	.1148	.0969	.0867	.0663	.0469	.0245	.0092	.0357	24	.0529	.1173
29	.1658	.1658	.1633	.1429	.1173	.1031	.0995	.1122	.0740	.0612	.0520	.0485	24	.0802	.1658
30	.0765	.0776	.0878	.0867	.0842	.0908	.0893	.0776	.0561	.0571	.0714	.0638	24	.0595	.0908
31	.0857	.0969	.0969	.0857	.0765	.0653	.0536	.0520	.0332	.0418	.0214	.0153	24	.0540	.0969
NO	30	27	30	30	30	30	30	30	30	30	30	30	703		
MEAN	.0767	.0819	.0818	.0808	.0748	.0724	.0695	.0664	.0566	.0449	.0402	.0399		.0527	
MAX	.1658	.1658	.1633	.1429	.1173	.1031	.1010	.1122	.1133	.0969	.0867	.0755			.1658

AIR QUALITY DATA REPORT

AGENCY: STATE
STATE: OKLAHOMA
PROJECT: SOURCE-ORIENTED AMBIENT SURV.
PARAMETER: OZONE, O3
UNITS: PARTS PER MILLION
MIN DET: .010 SAROAD KEY: 373000132F02
COLLECTION METHOD: INSTRUMENTAL
ANALYSIS METHOD: CHEMILUMINESCENCE
MONTH: AUGUST
SAMPLING INTERVAL: 01 HOURS
SITE: TULSA - APACHE STREET
YEAR: 1977
KEY-1: 373000132F02177 KEY-2: 080100 KEY-3: 4420111074 AREA: 3000 SITE: 132 UNITS CODE: 07 DECIMAL CODE: 4

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	.0194	.0179	.0245	.0255	.0255	.0102	.0015	.0015	.0102	.0214		.0510
02	.0026	.0153	.0051	.0000	.0000	.0092	.0077	.0041	.0153	.0510	.0704	.0878
03	.0214	.0179	.0383	.0449	.0408	.0316	.0026	.0026	.0153	.0638	.0612	.0673
04	.0571	.0622	.0663	.0653	.0612	.0571	.0510	.0434	.0204	.0347	.0367	.0520
05	.0765	.0714	.0704	.0663	.0602	.0485	.0230	.0026	.0179	.0571	.0704	.0791
06	.0663	.0673	.0587	.0536	.0459	.0459	.0383	.0347	.0357	.0408	.0485	.0485
07	.0459	.0520	.0561	.0536	.0449	.0332	.0281	.0367	.0434	.0510	.0602	.0653
08	.0434	.0459	.0449	.0459	.0434	.0357	.0204	.0179	.0418	.0510	.0602	.0602
09												
10	.0281	.0357	.0367	.0434	.0398	.0357	.0255	.0102	.0255	.0520	.0673	.0673
11	.0143	.0255	.0306	.0230	.0245	.0204	.0143	.0077	.0255	.0408	.0469	.0408
12	.0296	.0265	.0255	.0245	.0245	.0230	.0214	.0179	.0179	.0214	.0265	.0459
13	.0102	.0077	.0102	.0230	.0194	.0265	.0204	.0204	.0265	.0357	.0332	.0398
14	.0204	.0179	.0153	.0179	.0077	.0051	.0051	.0102	.0143	.0281	.0485	.0602
15	.0357	.0179	.0281	.0306	.0204	.0128	.0026	.0026	.0128	.0369	.0383	.0536
16	.0102	.0051	.0153	.0230	.0230	.0179	.0061	.0026	.0077	.0163	.0281	.0357
17	.0230	.0204	.0265	.0255	.0204	.0265	.0316	.0230	.0179	.0163	.0194	.0214
18	.0194	.0255	.0265	.0265	.0281	.0153	.0061	.0102	.0153	.0408	.0791	.0776
19	.0357	.0383	.0332	.0332	.0255	.0245	.0194	.0092	.0102	.0102	.0163	.0179
20	.0281	.0245	.0245	.0296	.0204	.0245	.0265	.0296	.0179	.0153	.0265	
21	.0041	.0041	.0041	.0092	.0153	.0214	.0015	.0041	.0179	.0383	.0500	.0653
22	.0000	.0000	.0000	.0077	.0255	.0265	.0061	.0015	.0061	.0367	.0689	.0827
23	.0143	.0204	.0316	.0673	.0459	.0367	.0306	.0194	.0296	.0398	.0418	.0485
24	.0449	.0255	.0296	.0347	.0561	.0179	.0153	.0128	.0194	.0255	.0449	.0706
25	.0434	.0536	.0510	.0510	.0551	.0893	.0689	.0357	.0612	.0740	.0740	.0816
26	.0347	.0357	.0408	.0383	.1347	.0536	.0434	.0316	.0281	.0357	.0367	.0398
27	.0332	.0316	.0281	.0245	.0214	.0332	.0241	.0230	.0230	.0255	.0316	.0357
28	.0306	.0306	.0281	.0255	.0255	.0214	.0230	.0230	.0214	.0163	.0449	.0449
29	.0015	.0102	.0128	.0077	.0077	.0236	.0179	.0153				
30	.0265	.0230	.0204	.0214	.0179	.0112	.0051	.0026	.0092	.0230	.0332	.0367
31						.0179	.0163	.0092	.0204	.0281	.0383	.0383
NO	30	30	30	30	30	30	30	30	29	29	28	24
MEAN	.0278	.0280	.0300	.0324	.0302	.0285	.0202	.0155	.0218	.0357	.0465	.0541
MAX	.0765	.0714	.0704	.0673	.0612	.0893	.0689	.0434	.0612	.0740	.0791	.0878

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	.0612	.0689	.0704		.0612	.0622	.0612	.0449	.0112	.0015	.0000	.0000	22	.0296	.0704
02	.1224	.1556	.1214	.1010	.0944	.1020	.0980	.1071	.0765	.0500	.0281	.0112	24	.0556	.1556
03	.0816	.1002	.1214	.1020	.0457	.0867	.0776	.0714	.0561	.0449	.0367	.0485	24	.0593	.1214
04	.0663	.0827	.0806	.0806	.0806	.0827	.0827	.0689	.0571	.0520	.0587	.0704	24	.0612	.0827
05	.0929	.0980	.0918	.0878	.0791	.0878	.0791	.0663	.0612	.0602	.0612	.0638	24	.0655	.0980
06	.0561	.0602	.0602	.0602	.0587	.0551	.0536	.0510	.0571	.0459	.0434	.0459	24	.0513	.0673
07	.0663	.0714	.0714	.0663	.0602	.0561	.0551	.0602	.0510	.0408	.0367	.0357	24	.0516	.0714
08	.0536												13	.0434	.0602
09					.0551	.0561	.0602	.0536	.0383	.0367	.0459	.0449	8	.0488	.0602
10	.0816	.1148	.1224	.0867	.0510	.0734	.0653	.0510	.0434	.0408	.0306	.0255	24	.0521	.1224
11	.0449	.0622	.0689	.0669	.0612	.0367	.0316	.0367	.0408	.0316	.0296	.0306	24	.0557	.0689
12	.0571	.0612	.0653	.0612	.0587	.0561	.0587	.0536	.0503	.0434	.0347	.0255	24	.0387	.0653
13	.0434	.0459	.0485	.0459	.0449	.0510	.0459	.0408	.0255	.0179	.0204	.0204	24	.0301	.0510
14	.0714	.0776	.0806	.0857	.0765	.0612	.0704	.0332	.0485	.0510	.0459	.0408	24	.0413	.0857
15	.0638	.0689	.0663	.0689	.0653	.0653	.0653	.0587	.0383	.0316	.0296	.0230	24	.0394	.0689
16	.0571	.0612	.0724	.0689	.0571	.0418	.0357	.0245	.0179	.0316	.0367	.0296	24	.0302	.0724
17	.0230	.0296	.0347	.0416	.0449	.0469	.0449	.0449	.0357	.0357	.0255	.0255	24	.0293	.0469
18	.0765	.0765	.0755	.0663	.0776	.0791	.0689	.0612	.0587	.0510	.0418	.0357	24	.0474	.0791
19	.0163	.0296	.0347	.0459	.0459	.0469	.0418	.0306	.0163	.0194	.0102	.0061	24	.0257	.0469
20	.0587	.0765	.0642	.0878	.0857	.0816	.0663	.0673	.0332	.0214	.0102	.0163	23	.0415	.0878
21	.0755	.0755	.0689	.0673	.0663	.0663	.0622	.0551	.0179	.0026	.0041	.0026	24	.0333	.0755
22	.0929	.0806	.0827	.1235	.1133	.0816	.0724	.0571	.0245	.0281	.0306	.0673	24	.0465	.1235
23	.0827	.1224	.1378	.1352	.1082	.1097	.1276	.1112	.0332	.0194	.0194	.0061	24	.0599	.1378
24	.0806	.0867	.0867	.0857	.0857	.0827	.0827	.1112	.0755	.0587	.0408	.0383	24	.0510	.1112
25	.0689	.0740	.0663	.0622	.0551	.0551	.0551	.0510	.0296	.0143	.0367	.0332	24	.0532	.0893
26	.0449	.0500	.0536	.0602	.0612	.0602	.0520	.0408	.0347	.0347	.0316	.0357	24	.0451	.0612
27	.0398	.0418	.0408	.0418	.0418	.0434	.0408	.0398	.0408	.0398	.0347	.0347	24	.0360	.0434
28	.0418	.0347	.0296	.0383	.0408	.0332	.0332	.0316	.0281	.0281	.0306	.0306	24	.0305	.0449
29					.0724	.0816	.0816	.0689	.0551	.0281	.0128	.0128	16	.0381	.0816
30				.0408	.0398	.0434	.0418	.0230	.0214	.0163	.0214	.0163	21	.0202	.0434
31	.0367	.0347	.0383	.0408	.0408	.0434	.0408	.0296	.0179	.0092	.0041	.0015	24	.0256	.0434
NO	26	27	27	27	30	30	30	30	30	30	30	30	703		
MEAN	.0627	.0722	.0731	.0711	.0656	.0642	.0617	.0548	.0398	.0328	.0296	.0292		.0428	
MAX	.1224	.1556	.1378	.1352	.1133	.1097	.1276	.1112	.0765	.0602	.0612	.0704			.1556

AIR QUALITY DATA REPORT

AGENCY: STATE STATE: OKLAHOMA PROJECT: SOURCE-ORIENTED AMBIENT SURV.

PARAMETER: OZONE, O3 UNITS: PARTS PER MILLION MIN DET: .010 SAROAD KEY: 373000132F02

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: CHEMILUMINESCENCE MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - APACHE STREET YEAR: 1977

KEY-1: 373000132F02177 KEY-2: 090100 KEY-3: 4420111076 AREA: 3000 SITE: 132 UNITS CODE: 07 DECIMAL CODE: 4

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	.0077	.0179	.0143	.0077	.0061	.0015	.0077	.0230	.0281	.0153	.0408	.0485
02	.0026	.0026	.0026	.0153	.0112	.0000	.0000	.0000	.0041	.0245		.0459
03	.0000	.0000	.0000	.0041	.0026	.0000	.0000	.0000	.0112	.0296	.0520	.0765
04	.0051	.0061	.0000	.0026	.0026	.0041	.0092	.0230	.0383	.0561	.0740	.0776
05	.0460	.0408	.0398	.0398	.0500	.0434	.0459	.0459	.0316	.0214	.0255	.0367
06	.0245	.0255	.0214	.0194	.0153	.0112	.0092	.0112	.0102	.0230	.0485	.0561
07	.0194	.0204	.0214	.0194	.0143	.0041	.0041	.0026	.0092	.0255	.0500	.0638
08	.0077	.0026	.0051	.0051	.0051	.0061	.0077	.0026	.0061	.0230	.0714	.0638
09	.0434	.0418	.0367	.0347	.0204	.0102	.0041	.0041	.0194	.0485	.0602	.0449
10	.0214	.0194	.0214	.0230	.0265	.0347	.0357	.0281	.0265	.0281	.0332	.0332
11		.0561	.0316	.0255	.0357	.0306	.0332	.0316	.0663	.0612	.0265	.0296
12	.0418	.0408	.0469	.0434	.0383	.0316	.0214	.0112	.0255	.0449	.0469	.0459
13	.0332	.0332	.0255	.0204	.0163	.0153	.0041	.0015	.0015	.0026	.0051	.0255
14	.0281	.0281	.0296	.0281	.0255	.0255	.0245	.0281	.0214	.0281	.0265	.0265
15	.0296	.0306	.0281	.0265	.0265	.0255	.0194	.0179	.0102	.0077	.0128	.0179
16	.0194	.0281	.0316	.0332	.0408	.0245	.0015	.0000	.0000	.0041	.0128	.0153
17	.0469	.0459	.0418	.0383	.0367	.0347	.0255	.0204	.0179	.0296	.0367	.0434
18	.0357	.0398	.0357	.0316	.0281	.0245	.0230	.0204	.0204	.0204	.0281	.0255
19	.0306	.0316	.0265	.0255	.0245	.0194	.0128	.0102	.0153	.0245	.0281	.0316
20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0051	.0316	.0434
21	.0367	.0408	.0408	.0398	.0398	.0418	.0316	.0061	.0128	.0316	.0459	.0551
22	.0653	.0724	.0714	.0714	.0510	.0434	.0357	.0153	.0112	.0408	.0663	.0740
23	.0740	.0765	.0755	.0740	.0653	.0561	.0449	.0265	.0230	.0245	.0281	.0255
24	.0281	.0306	.0281	.0255	.0357	.0357	.0306	.0296	.0255	.0265	.0281	.0357
25	.0015	.0015	.0000	.0000	.0000	.0000	.0000	.0015	.0051	.0179	.0306	.0459
26	.0306	.0255	.0255	.0204	.0194	.0102	.0061	.0026	.0061	.0051	.0255	.0398
27	.0408	.0347	.0357	.0306	.0204	.0214	.0332	.0143	.0204	.0347	.0418	.0469
28	.0306	.0245	.0245	.0230	.0204	.0194	.0153	.0138	.0138	.0255	.0281	.0296
29	.0255	.0265	.0265	.0204	.0204	.0194	.0163	.0051				
NO	28	29	29	29	29	29	29	29	27	28	27	28
MEAN	.0275	.0291	.0271	.0258	.0241	.0204	.0173	.0136	.0170	.0260	.0372	.0430
MAX	.0740	.0765	.0755	.0740	.0653	.0561	.0459	.0459	.0663	.0612	.0740	.0776

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	.0536	.0469	.0459	.0398	.0383	.0357	.0296	.0102	.0000	.0000	.0015	.0051	24	.0218	.0536
02	.0602	.0571	.0622	.0602	.0571	.0561	.0510	.0245	.0015	.0000	.0000	.0000	23	.0234	.0622
03	.0893	.0816	.0867	.0806	.0740	.0704	.0663	.0408	.0255	.0179	.0153	.0077	24	.0346	.0893
04	.0918	.0908	.1071	.0765	.0587	.0714	.0663	.0622	.0561	.0408	.0418	.0500	24	.0463	.1071
05	.0434	.0459	.0469	.0536	.0510	.0469	.0449	.0398	.0347	.0245	.0163	.0204	24	.0387	.0536
06	.0653	.0714	.0740	.0714	.0704	.0653	.0561	.0510	.0408	.0357	.0357	.0296	24	.0392	.0740
07	.0714	.0776	.0806	.0806	.0842	.0816	.0806	.0663	.0510	.0281	.0143	.0015	24	.0405	.0842
08			.0714	.0663	.0663	.0587	.0638	.0357	.0230	.0255	.0459	.0459	22	.0322	.0714
09	.0408	.0367	.0449	.0469		.0561	.0459	.0418	.0398		.0281	.0265	22	.0352	.0602
10	.0418	.0551	.0536	.0561	.0612	.0765	.0740	.0571	.0398	.0265			22	.0396	.0765
11	.0281	.0265	.0357	.0485	.0459	.0469	.0469	.0367	.0306	.0367	.0306	.0367	23	.0381	.0663
12	.0449	.0510	.0383	.0357	.0357	.0316	.0383	.0367	.0347	.0281	.0332	.0357	24	.0367	.0510
13	.0255	.0255	.0230	.0281	.0265	.0296	.0383	.0449	.0408	.0367	.0316	.0281	24	.0234	.0449
14	.0265	.0281	.0332	.0332	.0347	.0347	.0347	.0357	.0357	.0332	.0316	.0296	24	.0296	.0357
15	.0296	.0347	.0367	.0357	.0469	.0469	.0367	.0153	.0128	.0051	.0102	.0128	24	.0240	.0469
16	.0510	.0653	.0673	.0689	.0714	.0714	.0714	.0510	.0449	.0367	.0383	.0408	24	.0370	.0714
17	.0520	.0536	.0520	.0510	.0520	.0510	.0500	.0367	.0296	.0230	.0194	.0255	23	.0389	.0536
18	.0316	.0367	.0449	.0469	.0500	.0398	.0714	.0638	.0469	.0347	.0281	.0306	24	.0356	.0714
19	.0367	.0408	.0408	.0408	.0408	.0449	.0459	.0398	.0255	.0153	.0051	.0000	24	.0273	.0459
20	.0418	.0398	.0459	.0418	.0418	.0485	.0398	.0179	.0265	.0306	.0255	.0383	24	.0215	.0485
21	.0602	.0602	.0612	.0612	.0622	.0622	.0638	.0587	.0663	.0791	.0776	.0724	24	.0503	.0791
22	.0704	.0714	.0689	.0663	.0638	.0776	.0944	.0867	.0776	.0520	.0561	.0714	24	.0614	.0944
23	.0296	.0230	.0245	.0204	.0230	.0316	.0357	.0230	.0194	.0179	.0143	.0214	24	.0365	.0765
24	.0459	.0485	.0500	.0500	.0510	.0551	.0485	.0357	.0214	.0102	.0026	.0000	24	.0324	.0551
25	.0587	.0827	.0969	.0867	.0776	.0714	.0673	.0536	.0306	.0510	.0500	.0383	24	.0362	.0969
26	.0449	.0485	.0459	.0449	.0449	.0418	.0383	.0255	.0214	.0255	.0316	.0383	24	.0278	.0485
27	.0912	.0663	.0689	.0714	.0663	.1097	.0536	.0449	.0459	.0459	.0434	.0347	24	.0452	.1097
28	.0296	.0357	.0316	.0357	.0255	.0296	.0347	.0296	.0265	.0296	.0281	.0255	24	.0262	.0357
29													8	.0200	.0265
NO	27	27	28	28	27	28	28	28	28	27	27	27	671		
MEAN	.0491	.0519	.0549	.0535	.0526	.0551	.0531	.0416	.0339	.0292	.0280	.0284		.0348	
MAX	.0918	.0908	.1071	.0867	.0842	.1097	.0944	.0867	.0776	.0791	.0776	.0724			.1097

AIR QUALITY DATA REPORT

AGENCY: STATE
STATE: OKLAHOMA
PROJECT: SOURCE-ORIENTED AMBIENT SURV.
PARAMETER: OZONE, O3
UNITS: PARTS PER MILLION
MIN DET: .010 BARDAD KEY: 373000127F02
COLLECTION METHOD: INSTRUMENTAL
ANALYSIS METHOD: CHEMILUMINESCENCE
MONTH: JULY
SAMPLING INTERVAL: 01 HOURS
SITE: TULSA - MOHAWK BLVD
YEAR: 1977
KEY-1: 373000127F02177 KEY-2: 070100 KEY-3: 4420111074 AREA: 3000 SITE: 127 UNITS CODE: 07 DECIMAL CODE: 4

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	.0332	.0357	.0383	.0418	.0408	.0357	.0281	.0214	.0163	.0204	.0316	.0316
02	.0306	.0332	.0316	.0265	.0245	.0230	.0214	.0218	.0198	.0265	.0383	.0459
03	.0163	.0179	.0255	.0230	.0230	.0230	.0214	.0230	.0281	.0347	.0449	.0485
04	.0306	.0296	.0316	.0281	.0316	.0281	.0265	.0265	.0306	.0459	.0587	.0602
05	.0367	.0347	.0485	.0367	.0398	.0383	.0153	.0153	.0230	.0214	.0485	.0571
06	.0398	.0434	.0408	.0408	.0398	.0357	.0281	.0153	.0245	.0459	.0520	.0571
07	.0536	.0510	.0485	.0489	.0449	.0449	.0245	.0204	.0357	.0367	.0536	.0587
08	.0143	.0179	.0204	.0332	.0230	.0357	.0408	.0296	.0332	.0367	.0510	.0622
09	.0204	.0245	.0230	.0204	.0194	.0214	.0245	.0245	.0230	.0245	.0418	.0612
10	.0102	.0061	.0061	.0041	.0041	.0143	.0143	.0230	.0306	.0449	.0612	.0806
11	.0449	.0367	.0449	.0434	.0398	.0306	.0153	.0102	.0194	.0306	.0408	.0500
12	.0204	.0347	.0306	.0265	.0255	.0179	.0163	.0092	.0143	.0255	.0398	
13	.0408	.0469	.0485	.0418	.0357	.0255	.0077	.0051	.0204	.0383	.0561	.0612
14	.0051	.0000	.0000	.0000	.0000	.0000	.0000	.0041	.0255	.0408	.0663	.0842
15	.0383	.0332	.0128	.0026	.0026	.0015	.0000	.0102	.0332	.0587	.0959	.1020
16	.0622	.0587	.0551	.0602	.0469	.0408	.0408	.0357	.0500	.0612	.1061	.1061
17	.0449	.0449	.0536	.0459	.0367	.0469	.0459	.0551	.0520	.0673	.0842	.0893
18	.0316	.0398	.0459	.0408	.0332	.0316	.0153	.0128	.0265	.0571	.0893	.0816
19	.0321	.0459	.0408	.0357	.0306	.0434	.0332	.0204	.0321	.0612	.0883	.1071
20	.0663	.0628	.0577	.0485	.0434	.0398	.0306	.0219	.0306	.0408	.0612	.1031
21	.0500	.0561	.0485	.0469	.0459	.0357	.0245	.0214	.0245	.0367	.0612	.0740
22	.0015	.0026	.0015	.0153	.0347	.0383	.0347	.0306	.0418	.0571	.0704	.0806
23	.0265	.0143	.0026	.0026	.0000	.0051	.0061	.0128	.0245	.0510	.0536	.0929
24	.0485	.0500	.0332	.0383	.0398	.0316	.0255	.0245	.0357	.0520		.0827
25	.0536	.0357	.0500	.0469	.0520	.0485	.0255	.0153	.0536	.0663	.0816	.0857
26	.0638	.0587	.0485	.0408	.0434	.0408	.0255	.0281	.0459	.0612	.0689	.0638
27	.0255	.0230	.0230	.0194	.0179	.0163	.0128	.0102	.0143	.0163	.0196	.0204
28	.0347	.0316	.0281	.0296	.0408	.0367	.0255	.0485	.0194	.0255	.0332	.0561
29	.0459	.0449	.0357	.0357	.0245	.0153	.0051	.0077	.0399	.0663	.0867	.0969
30	.0418	.0357	.0306	.0306	.0316	.0255	.0230	.0179	.0255	.0383	.0612	.07
31	.0536	.0536	.0500	.0469	.0444	.0255	.0255	.0255	.0255	.0245	.0408	.0612
NO	31	31	31	31	31	31	31	31	31	31	30	30
MEAN	.0360	.0356	.0340	.0321	.0309	.0289	.0220	.0201	.0296	.0423	.0595	.0712
MAX	.0663	.0628	.0577	.0602	.0520	.0485	.0459	.0551	.0536	.0673	.1061	.1071

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	.0449	.0561	.0673	.0638	.0704	.0673	.0602	.0561	.0408	.0194	.0077	.0102	24	.0391	.0704
02	.0469	.0469	.0500	.0485	.0469	.0449	.0469	.0469	.0398	.0245	.0128	.0179	24	.0339	.0500
03	.0485	.0469	.0500	.0520	.0469	.0510	.0500	.0500	.0408	.0255	.0383	.0459	24	.0364	.0520
04	.0602	.0638	.0663	.0663	.0602	.0622	.0571	.0571	.0418	.0408	.0332	.0347	24	.0466	.0663
05	.0622	.0638	.0714	.0724	.0653	.0663	.0638	.0638	.0510	.0408	.0357	.0383	24	.0462	.0724
06	.0622	.0638	.0689	.0842	.0740	.0714	.0638	.0663	.0602	.0510	.0418	.0469	24	.0507	.0842
07	.0622	.0663	.0704	.0714	.0714	.0689	.0612	.0459	.0194	.0041	.0000	.0000	24	.0441	.0714
08	.0673	.0602	.0587	.0587	.0587	.0638	.0653	.0622	.0612	.0849	.0383	.0230	24	.0481	.0673
09	.0714	.0740	.0571	.0367	.0306	.0449	.0459	.0536	.0383	.0255	.0204	.0051	24	.0346	.0740
10	.0627	.0806	.0816	.0791	.0765	.0740	.0704	.0612	.0714	.0367	.0459	.0459	24	.0460	.0827
11	.0571	.0612	.0602		.0485	.0510	.0602	.0638	.0663	.0765	.0536	.0265	23	.0488	.0765
12	.0551	.0602	.0587	.0602	.0612	.0663	.0551	.0485	.0383	.0367	.0357	.0347	23	.0378	.0663
13	.0587	.0602	.0755	.0704	.0612	.0520	.0449	.0438	.0306	.0102	.0061	.0128	24	.0397	.0755
14	.0714	.0816	.0832	.0883	.0867	.0867	.0883	.0816	.0663	.0500	.0408	.0357	24	.0452	.0883
15	.0969	.1071	.0995		.0995	.1031	.0995	.0959	.0776	.0816	.0714	.0714	23	.0606	.1071
16	.1097	.1133	.1133	.1031	.0980	.0893	.0878	.0867	.0714	.0673	.0622	.0622	24	.0745	.1133
17	.0908	.0929	.0929	.0918	.0959	.0893	.0776	.0740	.0612	.0500	.0408	.0306	24	.0647	.0959
18	.0806	.0806	.0791	.0781	.0755	.0704	.0714	.0740	.0577	.0230	.0204	.0066	24	.0509	.0893
19	.0995	.0934	.0918	.0918	.0918	.0918	.0908	.0857	.0883	.0755	.0704	.0704	24	.0671	.1071
20	.0969	.0929	.1031	.0929	.0765	.0673	.0673	.0622	.0561	.0510	.0500	.0536	24	.0615	.1031
21	.0791	.0857	.0857	.0740	.0714	.0638	.0408	.0230	.0143	.0077	.0026	.0015	24	.0447	.0857
22	.0969	.1250	.1214	.1061	.1046	.0944	.0602	.0689	.0612	.0520	.0520	.0306	24	.0576	.1250
23	.0980	.1020	.1031	.0929	.0980	.1112	.1071	.0995	.0755	.0602	.0449	.0551	24	.0558	.1112
24	.0878	.0878	.0867	.0878	.0918	.0969	.0944	.0816	.0816	.0740	.0612	.0520	23	.0628	.0969
25	.0827	.0816	.0724	.0918	.0867	.0816	.0776	.1071	.1097	.0918	.0724	.0704	24	.0683	.1097
26	.0587	.0587	.0663	.0806	.0842	.0724	.0653	.0653	.0612	.0571	.0449	.0306	24	.0556	.0842
27	.0281	.0383	.0408	.0459	.0510	.0510	.0520	.0459	.0449	.0449	.0398	.0306	24	.0304	.0520
28	.0878	.1148	.1173	.1250	.1071	.0918	.0908	.0827	.0449	.0204	.0061	.0357	24	.0546	.1250
29	.0867	.0908	.0893	.0969									16	.0542	.0969
30	.0867	.0842	.0908	.0908	.0857	.0929	.0918	.0827	.0663	.0944	.0714	.0653	24	.0600	.0944
31	.0827	.0980	.0969	.0893	.0765	.0561	.0459	.0449	.0510	.0332	.0153	.0051	24	.0488	.0980
NO	31	31	31	29	30	30	30	30	30	30	30	30	732		
MEAN	.0742	.0784	.0796	.0789	.0758	.0731	.0684	.0660	.0563	.0456	.0378	.0349		.0503	
MAX	.1097	.1250	.1214	.1250	.1071	.1112	.1071	.1071	.1097	.0944	.0724	.0714			.1250

AIR QUALITY DATA REPORT

AGENCY: STATE STATE: OKLAHOMA PROJECT: SOURCE-ORIENTED AMBIENT SURV.

PARAMETER: OZONE, O3 UNITS: PARTS PER MILLION MIN DET: .010 SAROAD KEY: 373000127F02

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: CHEMILUMINESCENCE MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - NOWATA BLVD YEAR: 1977

KEY-1: 373000127F02177 KEY-2: 080100 KEY-3: 0420111074 AREA: 3000 SITE: 127 UNITS CODE: 07 DECIMAL CODE: 4

	HOUR											
DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	.0051	.0015	.0128	.0230	.0153	.0015	.0000	.0000	.0061	.0204	.0357	.0469
02	.0000	.0015	.0000	.0000	.0000	.0230	.0153	.0061	.0194	.0367	.0816	.0995
03	.0000	.0000	.0204	.0316	.0316	.0143	.0077	.0041	.0163	.0459	.0587	.0638
04	.0459	.0551	.0551	.0571	.0634	.0602	.0459	.0408	.0092	.0179	.0434	.0434
05	.0867	.0816	.0765	.0704	.0663	.0561	.0383	.0245	.0367	.0520	.0816	.0918
06	.0612	.0602	.0587	.0485	.0459	.0449	.0408	.0347	.0316	.0383	.0500	.0510
07	.0408	.0434	.0485	.0500	.0418	.0296	.0265	.0281	.0367	.0459	.0612	.0714
08	.0265	.0357	.0367	.0398	.0383	.0316	.0179	.0179	.0316	.0510	.0638	.0673
09	.0418	.0459	.0449	.0485	.0357	.0347	.0194	.0112	.0316	.0510	.0638	.0663
10	.0163	.0306	.0255	.0204	.0357	.0332	.0112	.0143	.0255	.0612	.0612	.0689
11	.0179	.0102	.0255	.0306	.0281	.0230	.0128	.0092	.0281	.0449	.0485	.0469
12	.0296	.0296	.0296	.0281	.0255	.0214	.0194	.0214	.0194	.0245	.0306	.0469
13	.0153	.0015	.0000	.0000	.0000	.0000	.0204	.0112	.0214	.0316	.0357	.0434
14	.0143	.0102	.0102	.0102	.0051	.0000	.0000	.0051	.0179	.0255	.0383	.0520
15	.0102	.0000	.0179	.0153	.0077	.0051	.0026	.0026	.0077		.0418	.0653
16	.0112	.0112	.0051	.0112	.0128	.0092	.0041	.0000	.0061	.0128	.0316	.0383
17	.0077	.0194	.0230	.0153	.0179	.0265	.0367	.0234	.0153	.0143	.0163	.0230
18	.0230	.0214	.0179	.0163	.0128	.0051	.0041	.0051	.0128	.0306	.0755	.0827
19	.0296	.0332	.0332	.0255	.0194	.0194	.0092	.0041	.0000	.0015		.0102
20	.0179	.0102	.0061	.0163	.0015	.0015	.0092	.0153	.0194	.0112	.0245	.0418
21	.0015	.0000	.0000	.0000	.0000	.0026	.0015	.0026	.0179	.0347	.0434	.0536
22	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0015	.0194	.0653	.0755
23	.0092	.0041	.0204	.0383	.0332	.0255	.0143	.0077	.0153	.0214	.0306	.0434
24	.0015	.0061	.0112	.0194	.0153	.0143	.0112	.0061	.0112	.0204	.0332	.0510
25	.0041	.0163	.0179	.0204	.0153	.0214	.0214	.0194	.0296	.0357	.0408	.0434
26	.0347	.0296	.0306	.0296	.0265	.0265	.0194	.0128	.0179	.0281	.0347	.0357
27	.0306	.0306	.0357	.0332	.0179	.0245	.0245	.0143	.0153	.0214	.0281	.0306
28	.0163	.0214	.0153	.0153	.0112	.0143	.0153	.0092	.0128	.0153	.0347	.0316
29	.0204	.0214	.0194	.0163	.0163	.0153	.0128	.0102	.0077	.0092	.0077	.0128
30	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0041			
31	.0347	.0265	.0128	.0230	.0194	.0153	.0051	.0051	.0143	.0281	.0398	.0418
NO	31	31	31	31	31	31	31	31	31	29	29	30
MEAN	.0210	.0212	.0229	.0243	.0213	.0193	.0150	.0117	.0174	.0293	.0449	.0513
MAX	.0867	.0816	.0765	.0704	.0663	.0602	.0459	.0408	.0367	.0612	.0816	.0995

	HOUR													
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	.0602	.0704	.0714	.0673	.0704	.0602	.0612	.0500	.0194	.0000	.0000	.0000	24	.0291	.0714
02	.1276	.1418	.1327	.0918	.0908	.0969	.1061	.1097	.0714	.0383	.0102	.0000	24	.0541	.1418
03	.0893	.1250	.1184	.1071	.0929	.0929	.0918	.0714	.0612	.0510	.0332	.0316	24	.0525	.1250
04	.0638	.0878	.0867	.0878	.0893	.0908	.0959	.0867	.0704	.0612	.0673	.0816	24	.0627	.0959
05	.1071	.1122	.1097	.1061	.0995	.1020	.0893	.0765	.0673	.0622	.0714	.0755	24	.0767	.1122
06	.0638	.0638	.0663	.0689	.0653	.0602	.0571	.0536	.0510	.0459	.0332	.0255	24	.0508	.0689
07	.0714	.0673	.0689	.0714	.0587	.0561	.0571	.0561	.0561	.0306	.0128	.0194	24	.0479	.0714
08	.0612	.0612	.0714	.0689	.0638	.0612	.0653	.0612	.0612	.0306	.0102	.0459	24	.0466	.0714
09	.0653	.0653	.0638	.0653	.0714	.0714	.0663	.0571	.0408	.0316	.0408	.0204	24	.0480	.0714
10	.0765	.1010	.1224	.1046	.0755	.0791	.0765	.0561	.0418	.0281	.0281	.0367	24	.0512	.1224
11	.0510	.0673	.0740	.0704	.0662	.0418	.0316	.0367	.0347	.0347	.0316	.0316	24	.0371	.0740
12	.0602	.0663	.0704	.0673	.0571	.0602	.0612	.0587	.0383	.0408	.0459	.0163	24	.0403	.0704
13	.0306	.0383	.0408	.0434	.0459	.0561	.0367	.0383	.0332	.0230	.0230	.0204	24	.0254	.0561
14	.0689	.0765	.0867	.0867	.0765	.0612	.0571	.0255	.0383	.0510	.0408	.0332	24	.0371	.0867
15	.0724	.0765	.0765	.0765	.0755	.0714	.0638	.0561	.0459	.0332	.0281	.0214	23	.0379	.0765
16	.0755	.0765	.0842	.0827	.0571	.0332	.0357	.0306	.0128	.0143	.0204	.0214	24	.0290	.0842
17	.0255	.0255	.0316	.0367	.0398	.0434	.0383	.0332	.0204	.0179	.0143	.0179	24	.0241	.0434
18	.0791	.0791	.0806	.0704	.0673	.0602	.0571	.0449	.0510	.0469	.0332	.0316	24	.0420	.0827
19		.0255	.0316	.0434	.0449	.0418	.0418	.0245	.0112	.0245	.0102	.0026	22	.0221	.0449
20	.0587	.0673	.0878	.1082	.0893	.0816	.0663	.0510	.0296	.0077	.0015	.0015	24	.0343	.1082
21	.0612	.0663	.0704	.0740	.0714	.0673	.0587	.0306	.0092	.0000	.0000	.0000	24	.0277	.0740
22	.0867	.0867	.0536	.0561	.0536	.0551	.0510	.0398	.0194	.0485	.0153	.0051	24	.0305	.0867
23	.0500	.0612	.0806	.1031	.1031	.1010	.1082	.0918	.0459	.0102	.0051	.0015	24	.0427	.1082
24	.0561	.0587	.0602	.0571	.0571	.0571	.0602	.0500	.0383	.0316	.0194	.0061	24	.0313	.0602
25	.0459	.0510	.0500	.0485	.0459	.0434	.0434	.0449	.0367	.0306	.0306	.0347	24	.0329	.0510
26	.0408	.0418	.0418	.0459	.0500	.0551	.0485	.0347	.0332	.0281	.0281	.0306	24	.0335	.0551
27	.0347	.0347	.0347	.0347	.0332	.0367	.0332	.0332	.0357	.0357	.0296	.0265	24	.0295	.0367
28	.0296	.0214	.0204	.0179	.0255	.0163	.0143	.0153	.0153	.0194	.0204	.0204	24	.0187	.0347
29	.0204	.0230	.0281	.0587	.0689	.0791	.0755	.0510	.0255	.0000	.0000	.0000	24	.0249	.0791
30	.0383	.0408	.0449	.0469	.0485	.0485	.0459	.0383	.0265	.0265	.0265	.0316	21	.0222	.0485
31	.0418	.0449	.0459	.0449	.0469	.0459	.0469	.0408	.0265	.0204	.0102	.0026	24	.0284	.0469
NO	30	31	31	31	31	31	31	31	31	31	31	31	738		
MEAN	.0604	.0653	.0679	.0681	.0643	.0621	.0594	.0499	.0376	.0298	.0239	.0223		.0379	
MAX	.1276	.1418	.1327	.1082	.1031	.1020	.1082	.1097	.0714	.0622	.0714	.0816			.1418

AIR QUALITY DATA REPORT

AGENCY: STATE
STATE: OKLAHOMA
PROJECT: SOURCE-ORIENTED AMBIENT SURV.
PARAMETER: OZONE, O3
UNITS: PARTS PER MILLION
MIN DET: .010 SAROAD KEY: 37300012702
COLLECTION METHOD: INSTRUMENTAL
ANALYSIS METHOD: CHEMILUMINESCENCE
MONTH: SEPTEMBER
SAMPLING INTERVAL: 01 HOURS
SITE: TULSA - MOHAAK BLVD
YEAR: 1977
KEY-1: 373000127F02177 KEY-2: 090100 KEY-3: 4420111074 AREA: 3000 SITE: 127 UNITS CODE: 07 DECIMAL CODE: 4

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	.0000	.0000	.0000	.0000	.0000	.0000	.0112	.0205	.0255	.0306	.0418	.0571
02	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0015	.0204	.0510	.0776
03	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0015	.0230	.0663	.1031
04	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0153	.0434	.0663	.0929
05	.0347	.0367	.0449	.0408	.0367	.0398	.0434	.0434	.0255	.0214	.0265	.0332
06	.0255	.0245	.0179	.0128	.0153	.0163	.0143	.0092	.0112	.0204	.0357	.0510
07	.0112	.0112	.0102	.0112	.0051	.0000	.0000	.0015	.0061	.0179	.0367	.0510
08	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0015	.0112	.0357	.0500
09	.0265	.0306	.0255	.0194	.0163	.0051	.0000	.0000	.0077			
10			.0265	.0255	.0245	.0230	.0204	.0179	.0179	.0214	.0230	.0214
11	.0041	.0015	.0015	.0015	.0153	.0179	.0194	.0230	.0245	.0316	.0281	.0281
12	.0459	.0459	.0485	.0408	.0459	.0434	.0408	.0316	.0265	.0459	.0602	.0587
13	.0418	.0357	.0306	.0255	.0128	.0112	.0051	.0015	.0028	.0041	.0051	.0190
14	.0357	.0347	.0316	.0306	.0281	.0281	.0265	.0296	.0204	.0265	.0347	.0255
15	.0306	.0332	.0316	.0316	.0316	.0336	.0204	.0128	.0061	.0112	.0179	.0214
16	.0255	.0316	.0408	.0449	.0306	.0255	.0051	.0000	.0000	.0026	.0196	.0153
17	.0587	.0602	.0571	.0520	.0469	.0449	.0347	.0270	.0214	.0357	.0500	.0551
18	.0316	.0306	.0255	.0255	.0281	.0306	.0265	.0296	.0296	.0245	.0306	.0214
19	.0179	.0316	.0316	.0204	.0255	.0255	.0153	.0153	.0204	.0281	.0332	.0398
20	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0051	.0367	.0510
21	.0520	.0536	.0536	.0602	.0587	.0485	.0383	.0163	.0398	.0571	.0622	.0755
22	.0878	.0704	.0571	.0714	.0827	.0580	.0510	.0316	.0194	.0663	.0857	.0969
23	.1046	.1082	.1061	.0995	.0893	.0765	.0510	.0255	.0306	.0408	.0367	.0367
24	.0245	.0347	.0306	.0281	.0459	.0418	.0398	.0332	.0255	.0332	.0316	.0459
25	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0000	.0051	.0214	.0367	.0587
26	.0255	.0281	.0332	.0255	.0245	.0204	.0179	.0051	.0153	.0163	.0306	.0383
27	.0383	.0332	.0332	.0204	.0143	.0230	.0357	.0265	.0306	.0408	.0296	.0357
28	.0357	.0357	.0296	.0230	.0153	.0143	.0230	.0255	.0204	.0306	.0367	.0434
29	.0306	.0316	.0347	.0306	.0296	.0265	.0214	.0102	.0029	.0214	.0347	.0357
30	.0015	.0015	.0153	.0214	.0230	.0214	.0194	.0077	.0092	.0153	.0316	.0383
NO	29	29	30	30	30	30	30	30	30	29	29	29
MEAN	.0272	.0277	.0272	.0256	.0240	.0221	.0193	.0147	.0154	.0264	.0383	.0475
MAX	.1046	.1082	.1061	.0995	.0893	.0765	.0510	.0434	.0398	.0663	.0857	.1031

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	.0587	.0561	.0551	.0485	.0469	.0459	.0398	.0230	.0015	.0000	.0000	.0000	24	.0235	.0587
02	.0776	.0791	.0806	.0653	.0653	.0653	.0561	.0316	.0102	.0000	.0000	.0000	24	.0284	.0806
03	.1010	.1031	.0857	.0929	.0842	.0776	.0755	.0510	.0265	.0153	.0102	.0000	24	.0382	.1031
04	.1112	.1122	.0908	.0638	.0561	.0663	.0663	.0536	.0485	.0316	.0255	.0306	24	.0406	.1122
05	.0434	.0500	.0500	.0500	.0485	.0449	.0383	.0245	.0194	.0112	.0000	.0128	24	.0341	.0500
06	.0571	.0571	.0612	.0622	.0638	.0587	.0536	.0265	.0153	.0112	.0230	.0112	24	.0314	.0638
07	.0622	.0704	.0689	.0689	.0689	.0704	.0571	.0357	.0051	.0000	.0000	.0000	24	.0279	.0704
08	.0612	.0612	.0653	.0587	.0587	.0500	.0449	.0316	.0281	.0316	.0367	.0230	24	.0270	.0653
09			.0663	.0612	.0587	.0449	.0418	.0408	.0357	.0332			16	.0293	.0663
10	.0434	.0561	.0612	.0638	.0638	.0663	.0673	.0469	.0230	.0281	.0153	.0077	22	.0347	.0673
11	.0296	.0316	.0408	.0551				.0551	.0485	.0418	.0449	.0449	21	.0280	.0551
12	.0602	.0561	.0500	.0485	.0500	.0367	.0398	.0500	.0316	.0255	.0408	.0408	24	.0443	.0602
13	.0194	.0316	.0194	.0265	.0245	.0281	.0449	.0485	.0418	.0398	.0255	.0316	24	.0240	.0485
14	.0265	.0306		.0332	.0367	.0357	.0347	.0367	.0398	.0367	.0367	.0332	23	.0318	.0398
15	.0296	.0357	.0408	.0536	.0571	.0663	.0485	.0143	.0051	.0077	.0051	.0102	24	.0272	.0663
16	.0622	.0740	.0842	.0876	.0929	.0867	.0867	.0714	.0536	.0408	.0612	.0571	24	.0458	.0929
17	.0612	.0653	.0673	.0653	.0622	.0638	.0612	.0485	.0296	.0332	.0316	.0306	24	.0482	.0673
18	.0347	.0485	.0510	.0571	.0622	.0612	.0740	.0418	.0418	.0281	.0204	.0143	24	.0362	.0740
19	.0459	.0510	.0459	.0510	.0520	.0510	.0459	.0204	.0000	.0000	.0000	.0000	24	.0278	.0520
20	.0520	.0459	.0622	.0663	.0612	.0622	.0571	.0316	.0449	.0500	.0469	.0510	24	.0301	.0663
21	.0806	.0842	.0827	.0827	.0842	.0878	.0893	.0857	.0842	.1020	.1031	.0969	24	.0699	.1031
22	.1020	.0995	.0959	.0876	.0878	.0918	.1214	.1173	.1071	.0995	.0929	.1061	24	.0824	.1214
23	.0357	.0357	.0255	.0255	.0408	.0357	.0418	.0316	.0204	.0265	.0265	.0194	24	.0467	.1082
24	.0612	.0663	.0740	.0724	.0673	.0653	.0347	.0077	.0000	.0000	.0000	.0000	24	.0359	.0740
25	.0714	.0918	.0944	.0893	.0959	.0959	.0510	.0102	.0000	.0128	.0418	.0230	24	.0333	.0959
26	.0367	.0398	.0383	.0408	.0398	.0306	.0347	.0255	.0255	.0194	.0194	.0306	24	.0275	.0408
27	.0765	.0867	.0918	.0959	.0908	.0857	.0689	.0602	.0510	.0500	.0449	.0408	24	.0501	.0959
28	.0459	.0469	.0469	.0449	.0398	.0459	.0520	.0449	.0398	.0398	.0367	.0367	24	.0354	.0520
29	.0510	.0714	.0857	.0893	.0929	.0791	.0561	.0245	.0255	.0255	.0255	.0102	24	.0394	.0929
30	.0520	.0612	.0663	.0653	.0638	.0791	.0918	.0689	.0510	.0485	.0296	.0398	24	.0384	.0918
NO	29	29	28	30	29	29	29	30	30	30	29	29	706		
MEAN	.0569	.0620	.0636	.0626	.0627	.0616	.0577	.0420	.0318	.0296	.0291	.0276		.0375	
MAX	.1112	.1122	.0959	.0959	.0959	.0959	.1214	.1173	.1071	.1020	.1031	.1061			.1214

SECTION 4.3

NITRIC OXIDE MEASUREMENTS FROM THE 8-SITE RTI NETWORK

Preceding page blank

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #4 BUILDI
(372240999AD5)

NITRIC OXIDE
#760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	12	1	2	3	4	5 AM	6	7	8	9	10	11	12	1	2	3	4	5 PM	6	7	8	9	10	11	DAILY MEAN NO.
1																									
2																									
3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
4																									7
5																									24
										.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	0
6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	15
7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
9	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
11	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
13	.000	.000																							
14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
15	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
16	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
17	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
18	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
19	.000	.000	.000	.000		.003	.005	.003	.005	.003	.003	.003	.003	.003	.003	.003	.003	.005	.005	.000	.003	.000	.000	.001	23
20	.000	.000	.000	.000		.003	.003	.003	.003	.000	.000	.000	.003	.000	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
						.000	.003	.005	.003	.000	.000	.003	.005	.005	.005	.003	.005	.003	.003	.000	.003	.000	.000	.001	23
21	.000	.000	.000	.000	.000	.005	.003	.003		.003	.003	.003	.003	.003	.003	.003	.000	.005	.003	.003	.003	.000	.003	.003	23
22	.000	.000	.000	.000	.000	.010	.005	.010	.000	.000	.000	.000	.000	.000	.003	.003	.003	.000	.000	.000	.000	.000	.000	.001	24
23	.000	.000	.000	.000	.000	.000	.005	.000	.003	.003	.003	.000	.003	.000	.003	.003	.003	.005	.000	.005	.005	.000	.003	.002	24
24	.000	.000	.000	.000	.000	.003	.003	.003	.003	.000	.003	.000	.003	.003	.008	.003	.005	.003	.003	.000	.000	.000	.000	.002	24
25	.000	.000	.000	.000	.000	.003	.005	.003	.000	.003	.003	.000	.000	.003	.000	.003	.003	.003	.003	.000	.000	.000	.000	.001	24
26	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.003	.000	.000	.000	.000	.000	.003	.000	.000	24
27	.000	.000	.000	.000		.000	.003	.000	.000	.008	.008	.003	.003	.000	.003	.000	.003	.000	.000	.000	.000	.003	.000	.001	23
28	.000	.000	.000	.000		.000	.003	.000	.000	.000	.003	.000	.000	.000	.003	.003	.000	.000	.003	.003	.000	.000	.005	.000	23
29	.000	.000	.000	.000		.000	.008	.004	.004	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.000	.003	.003	.003	23
30	.003	.000	.000	.004	.003	.004	.007	.003	.005	.003	.002	.002	.001	.004	.000	.003			.003	.005	.002	.000	.000	.000	22
31	.000	.000	.000	.000	.000	.000	.000	.000	.001		.002	.000	.001	.000	.000	.000	.000	.000	.000	.003	.000	.000	.002	.000	23
AVG	.000	.000	.000	.000	.000	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.001	.001	.000	.001	
NO.	27	27	24	25	17	24	24	27	25	27	27	24	28	28	28	28	26	28	29	29	29	29	29	29	696
MAX	.003	.000	.000	.004	.003	.010	.008	.004	.005	.008	.008	.003	.005	.005	.008	.003	.005	.008	.005	.005	.003	.005	.005	.003	.010

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999AOS)

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	DAILY MEAN	NO.
1	.000	.000	.000	.001	.000	.000	.003	.004	.004	.003	.000	.000	.000	.001	.005	.001	.001	.000	.001	.012	.008	.004	.004	.000	.002	24
2	.000	.000	.000	.001		.002	.004	.004	.002	.001	.001	.002	.001	.001	.002	.003	.002	.001	.000	.000	.001	.001	.000	.002	.001	23
3	.000	.000	.000	.000		.005	.009	.004	.002	.002	.000	.003	.002	.002	.001	.002	.002	.001	.003	.002	.002	.001	.000	.001	.002	23
4	.000	.000	.000	.000		.004	.002	.003	.002	.000	.003	.002	.002	.001	.002	.002	.001	.002	.001	.002	.001	.001	.000	.000	.001	23
5	.000	.001	.000	.000		.003	.002	.003	.003	.002	.003	.001	.003	.001	.002	.003	.001	.002	.001	.001	.001	.001	.001	.001	.002	23
6	.000	.000	.000	.000		.002	.001	.000	.001	.001	.001	.001	.002	.001	.002	.003	.004	.004	.003	.002	.001	.001	.000	.000	.001	23
7	.001	.001	.000	.000	.000	.000	.000	.001	.001	.001	.001	.000	.002	.002	.002	.003	.002	.001	.001	.001	.001	.001	.000	.000	.001	24
8	.001	.000	.000	.000	.000	.002	.002	.001	.001	.002	.001	.001	.002	.002	.002	.003	.001	.001	.002	.002	.002	.000	.000	.000	.001	24
9	.000	.000	.001	.000	.001	.003	.003	.002	.003	.004	.003	.004	.003	.004	.001	.003	.003	.003	.002	.002	.002	.000	.000	.000	.001	24
10	.000	.001	.000	.000	.000	.005	.005	.004	.005	.005	.002	.001	.002	.000	.004	.002	.001	.001	.002	.002	.001	.001	.000	.000	.002	24
11	.000	.000	.000	.001	.000	.002	.002	.003	.002	.004	.005	.004	.002	.001	.000	.001	.001	.000	.001	.000	.000	.000	.000	.000	.001	24
12					.001	.000	.001	.009	.012	.008	.009	.002	.002	.001	.001	.001	.000	.010	.000	.000	.001	.001	.001	.001	.003	20
13	.000	.000	.001	.001		.001	.003	.003	.002	.002	.002	.000	.000	.000	.001	.000	.002	.002	.002	.003	.000	.001	.002	.001	.001	23
14	.000	.000	.000	.000	.000	.000	.001	.002	.002	.002	.002	.002	.002	.004	.005	.009	.001	.009	.005	.002	.001	.001	.001	.001	.000	24
15	.000	.000	.000	.001		.000	.000	.001	.002	.003	.002	.001	.001	.001	.002	.001	.002	.002	.000	.002	.000	.002	.003	.000	.001	23
16	.000	.000	.000	.001		.002	.003	.001	.002	.002	.002	.002	.002	.002	.001	.001	.002	.000	.001	.001	.000	.000	.000	.000	.001	23
17	.000	.000	.000	.000		.000	.000	.000	.000	.001	.000	.001	.004	.003	.003	.002	.001	.000	.000	.000	.000	.000	.000	.001	.001	23
18	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.001	.002	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
19	.000	.000	.000	.000		.002	.000	.001	.001	.001	.000	.002	.002	.001	.002	.002	.001	.000	.002	.001	.000	.001	.001	.001	.001	23
20	.000	.000	.000	.001		.001	.000	.003	.005	.005	.004	.002	.002	.003	.001	.002	.001	.001	.001	.002	.001	.000	.002	.002	.002	23
21	.001	.002	.000	.000	.000	.002	.000	.001	.003	.002	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	24
22	.008	.010	.006	.002	.006	.010	.015	.002	.001	.001	.000	.000	.000	.000	.001	.000	.000	.001	.001	.000	.000	.000	.001	.000	.003	24
23	.000	.000	.000	.001	.000	.002	.003	.003	.002	.001	.001	.000	.001	.000	.001	.000	.000	.000	.000	.000	.001	.001	.000	.000	.001	24
24	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.001	24
25	.000	.000	.000	.000	.000	.001	.001	.000	.001	.001	.002	.000	.001	.001	.001	.001	.001	.001	.002	.000	.001	.001	.000	.000	.001	24
26	.001	.000	.000	.000	.001	.001	.002	.002	.003	.003	.002	.002	.002	.003	.002	.002	.002	.002	.002	.002	.001	.001	.000	.001	.002	24
27	.000	.001	.001	.001		.003	.003	.003	.001	.002	.002	.002	.002	.002	.002	.003	.001	.001	.001	.002	.001	.001	.002	.002	.002	23
28	.000	.000	.001	.000	.001	.000	.002	.002			.004	.004	.005	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	22
29	.000	.000	.000	.000	.000	.000	.000		.009	.008	.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	23
30	.000	.000	.000	.000		.003	.003			.001	.001	.001	.011	.012	.009	.003	.001	.000	.001	.001	.000	.001	.000	.000	.002	21
31	.000	.000	.000	.001	.000	.001	.001	.000	.001	.000	.000	.001	.000	.001	.001	.001	.001	.001	.001	.000	.002	.000	.000	.001	.001	24
AVG	.000	.001	.000	.000	.001	.002	.002	.002	.003	.002	.002	.001	.002	.002	.002	.001	.002	.001	.001	.001	.001	.001	.001	.000	.001	
NO.	30	30	30	30	17	31	31	29	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31			721
MAX	.008	.010	.006	.002	.006	.010	.015	.009	.012	.008	.009	.004	.011	.012	.009	.003	.002	.010	.003	.012	.008	.004	.004	.002	.015	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999AD5)

SEP 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.001	.002			.002	.003	.000	.002	.004	.002	.003	.000	.001	.001	22
2	.000	.000	.000	.000	.001	.003	.002	.003	.003	.002	.003	.001	.002	.002	.002	.001	.001	.001	.002	.003	.001	.000	.005	.000	.002	24
3	.000	.000	.003	.001	.010	.010	.007	.005	.006	.002	.001	.001	.000	.001	.001	.001	.002	.001	.003	.002	.001	.000	.001	.000	.002	24
4	.000	.000	.000	.000	.000	.001	.000	.000	.001	.001	.000	.000	.001	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	24
5							.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	18
6	.000	.000	.000	.000	.000	.000	.005	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
7	.000	.000	.000	.000	.000	.003	.002	.001	.003	.003	.001	.001	.001	.001	.001	.001	.001					.000	.000	.001	.001	20
8	.000	.000	.000	.000	.000	.000	.007	.010		.001	.003	.000	.000	.001	.002	.001	.000	.000	.000	.000	.000	.001	.000	.000	.001	23
9	.000	.000	.000	.000	.000	.005	.004	.002	.001	.000	.001	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.001	24
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	24
12	.000	.000	.000	.000	.000	.000	.001	.000	.001	.000	.000	.001	.001	.000	.000	.001	.000	.000	.000	.000	.001	.000	.000	.000	.000	24
13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
15						.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000					.000	20
16	.000	.000	.000	.000	.001	.002	.003	.001	.000	.001	.001	.000	.000	.000	.000	.000	.001	.000	.001	.001	.000	.000	.000	.000	.000	19
17	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.001	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	24
18	.000	.000	.000	.000	.000	.000	.000	.000		.002	.002	.002	.001	.001	.002	.003	.002	.001	.002	.001	.001	.001	.001	.001	.001	23
19	.001	.001	.001	.001	.001	.000	.005	.005	.002	.002	.001	.001	.001	.000	.000	.000	.000	.001	.002	.006	.000	.001	.000	.001	.001	24
20	.005	.001	.004	.005	.002	.006	.015	.010	.001	.002	.003	.001	.002	.003	.001	.002	.001	.002	.004	.003	.001	.000	.001	.000	.003	24
21	.000	.000	.000	.000	.000	.001	.001	.001	.000	.000	.001	.000	.000	.000	.006	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
22	.000	.000	.000	.000	.000	.001	.001	.001	.002	.002	.000	.000	.001	.003	.004	.003	.002	.002	.002	.001	.001	.000	.002	.000	.001	24
23	.000	.000	.000	.000	.001	.000	.002	.002	.001	.003	.002	.000	.002	.001	.001	.002	.002	.002	.002	.001	.000	.001	.000	.000	.001	24
24	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.000	24
25	.000	.000	.000	.000	.000	.001	.001	.001	.000	.001	.002	.001	.000	.001	.000	.000	.000	.000	.000	.001	.001	.001	.000	.000	.000	24
26	.000	.000	.000	.000	.000	.001	.000	.000	.001	.002	.001	.001	.001	.001	.001	.002	.001	.002	.002	.001	.000	.000	.000	.000	.001	24
27	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.001	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	24
29	.000	.000	.000	.000	.000	.001	.001	.001	.000	.001	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	24
30	.000	.000	.000	.000	.000	.001	.001	.001	.001	.000	.000	.001	.001	.001	.001	.001	.000	.000	.000	.001	.000	.000	.000	.000	.000	24
AVG	.000	.000	.000	.000	.001	.001	.002	.002	.001	.001	.001	.000	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.001	.000	.001	
NO.	28	28	28	28	28	29	30	30	28	30	30	30	30	29	29	30	30	30	29	29	28	28	29	29		697
MAX	.005	.001	.004	.005	.010	.010	.015	.010	.006	.003	.003	.002	.002	.003	.006	.003	.003	.002	.004	.004	.002	.003	.006	.003	.015	

DEC 19, 1978
DEC 11, 1978 DATA BASE VERSION

NATIONAL AEROMETRIC DATA BANK
ENVIRONMENTAL PROTECTION AGENCY

SELECT CARD 5

OKLAHOMA
TULSA
110 S. ELWOOD ST. TULSA, OK
(373000998A05)

NITRIC OXIDE
42601I4
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

01-HOUR DATA LISTING

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
01																			.011	.008	.001	.001	.001	.004		6
02																										0
03																										0
04																										0
05																										0
06																										0
07																										0
08																										0
09																										0
10																										0
11	.029	.039	.019	.024	.064	.048	.048	.084		.079	.064	.005	.014	.014	.034	.099	.104	.099	.114	.074	.054	.074	.079	.074	.058	23
12	.074	.114	.134	.134	.114	.129	.124	.124		.049	.099	.074	.039	.044	.024	.064	.049	.044								17
13		.029	.024	.014	.004	.004	.059	.074		.049	.084	.049	.014	.009	.014			.164	.049	.024	.014	.008	.006	.000	.035	20
14	.018	.045	.012	.002	.009	.018	.051	.045		.023	.034	.056	.056	.012	.009	.009	.004	.004	.000	.004	.009	.012	.012	.002	.019	23
15	.009	.000	.000	.000	.000	.000	.014	.029		.019	.024	.019	.014	.001	.029	.019	.034	.004	.014	.003	.000	.000	.009	.001	.010	23
16	.000	.000	.004	.009		.016	.010	.026	.029	.019	.014	.014	.009	.014	.009	.019	.006	.000	.000	.001	.009	.016	.024	.024	.042	23
17	.034	.004	.004	.001	.000	.001	.009	.014	.034	.024	.034	.054	.059	.049	.034	.034	.074	.099	.134	.160	.084	.006	.004	.006	.040	24
18	.001	.000	.009	.004		.009	.006	.011	.006	.059	.039	.064	.049	.034	.074	.084	.084	.109	.009	.099	.074	.009	.000	.000	.036	23
19	.001	.009	.004	.006	.001	.001	.014	.014	.014	.006	.001	.004	.019	.009	.006	.024	.009	.001	.000	.000	.000	.000	.000	.000	.006	24
20	.000	.000	.000	.000		.004	.006	.029	.014	.016	.026	.034	.014	.009	.013	.009	.006	.012	.012	.000	.000	.000	.012	.000	.009	23
21	.004	.054	.064	.044		.074	.039	.024	.019	.011	.009	.011	.009	.006	.006	.024	.006	.009	.021	.021	.004	.006	.001	.001	.020	23
22	.001	.001	.000	.000	.000	.000	.006	.006	.004	.001	.000	.001	.001	.001	.001	.000	.049	.023	.009	.001	.000	.001	.000	.000	.004	24
23	.000	.000	.000	.000	.000	.001	.019	.000	.001	.011	.011	.004	.000	.000	.004	.000	.000	.000	.008	.001	.000	.000	.001	.006	.003	24
24	.019	.019	.049	.044		.084	.094	.079	.064	.064	.064	.034	.006	.024	.001	.014	.109	.134	.150	.024	.014	.009	.014	.019	.049	23
25	.026	.031	.006	.001	.013	.026	.018	.013	.080	.016	.001	.006	.001	.001	.001	.000	.001	.006	.006	.006	.006	.006	.006	.006	.012	24
26	.000	.000	.000	.000		.000	.014	.009	.001	.001	.004	.001	.006	.001	.000	.001	.001	.001	.000	.000	.000	.000	.000	.001	.002	23
27	.000	.000	.000	.000	.000	.003	.009	.006	.009	.006	.011	.006	.001	.001	.003	.004	.006	.000	.000	.000	.001	.001	.000	.000	.003	24
28	.000	.000	.000	.000		.000	.003	.003	.009	.011	.006	.003	.012	.003	.006	.018	.021									16
29						.017	.047	.022	.009		.007	.003	.002	.002	.002	.003	.002	.001	.000	.000	.000	.012	.047	.027	.011	18
30	.012	.019	.114	.114	.116	.087	.112	.116	.107	.097	.077	.087	.052	.017	.077	.077	.019	.019	.000	.000	.001	.000		.022	.058	23
31	.027	.062	.027	.002		.002	.003	.003	.009	.004	.002	.001	.000	.000	.000	.002	.000	.003	.000	.000	.003	.004	.007	.012	.008	23
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
AVG NO	19	20	20	20	12	21	21	21	16	20	21	21	21	21	21	20	20	20	20	20	20	20	19	20	.022	474
MAX	.074	.114	.134	.134	.116	.129	.124	.124	.107	.097	.099	.087	.059	.049	.077	.099	.109	.164	.150	.160	.084	.074	.079	.074	.164	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
110 S. ELWOOD ST. TULSA, OK.
(373000995A051

NITRIC OXIDE
#760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	DAILY MEAN	NO.
1	.007	.000	.000	.000		.027	.062	.047	.014	.012	.009	.006	.004	.004	.003	.004	.007	.003	.007	.002	.003	.032	.022	.117	.019	23
2	.047	.032	.017	.019	.003	.037	.037	.027	.012	.022	.012	.043	.002	.004	.002	.002	.004	.002	.002	.002	.002	.012	.042	.007	.017	24
3	.017	.087	.092	.087	.077	.022	.052	.037	.019	.018	.014	.011	.022	.032	.067	.077	.101	.042	.042	.009	.009	.052	.027	.101	.047	24
4	.117	.127	.112	.077	.087	.067	.017	.022	.022	.019	.009	.007	.007	.007	.014	.052	.062	.042	.037	.017	.012	.037	.037	.042	.045	24
5	.039	.057	.044	.022	.022	.087	.004	.009	.059	.087	.101	.077	.047	.087	.047	.042	.037			.027	.042	.052	.042	.087	.054	22
6	.132	.077	.111	.082	.067	.082	.107	.127	.137	.132	.087	.087	.077	.082	.111	.111	.117	.092	.132	.042	.052	.057	.042	.032	.091	24
7	.023	.023	.080	.111	.158	.148	.152	.183	.163	.116	.121	.106	.106	.121	.142	.116	.183	.106	.095	.095	.064	.076	.039	.028	.107	24
8	.017	.062	.117	.087	.102	.112	.182	.167	.122	.102	.052	.057	.112	.087	.137	.137	.167	.152	.137	.087	.042	.032	.012	.014	.094	24
9	.009	.042	.017	.039		.087	.088	.102	.105	.127	.067	.102	.092	.087	.102	.152	.147	.132	.162	.147	.012	.077	.112	.142	.093	23
10	.162	.117	.137	.092	.039	.067						.013	.012	.014	.015	.006	.009	.020	.057	.137	.127	.022	.007	.001	.055	19
11	.000	.000	.000	.003	.000	.001	.012	.010	.007	.004	.006	.004	.004	.003	.004	.004	.006	.004	.001	.001	.000	.001	.000	.001	.003	24
12	.001	.000	.000	.002	.002	.004	.012	.014	.014	.012	.008	.006	.006	.006	.007	.008	.009	.006	.004	.002	.002	.011	.011	.009	.006	24
13	.007	.014	.003	.003	.012	.019	.017	.017	.027	.017	.011	.007	.007	.007	.007	.006	.004	.004	.003	.002	.001	.004	.004	.001	.001	24
14	.001	.000	.000	.000	.000	.001	.002	.003	.026	.020	.011	.009	.009	.006	.004	.004	.004	.004	.003	.012	.003	.002	.001	.001	.006	24
15	.039	.022	.025	.009	.010	.029	.057	.041	.026	.020	.027	.019	.021	.009	.009	.009	.007	.007	.004	.010	.112	.092	.117	.107	.038	24
16	.086	.092	.062	.042	.034	.075	.064	.087	.102	.037	.052	.024	.027	.025	.037	.025	.047	.017	.022	.037	.016	.008	.006	.006	.043	24
17	.007	.004	.002	.003	.002	.007	.014	.012	.016	.017	.008	.009	.012	.011	.009	.012	.010	.007	.004	.004	.003	.003	.004	.002	.008	24
18	.001	.001	.001	.000	.000	.013	.037	.040	.028	.007	.007	.007	.007	.007	.008	.009	.009	.008	.008	.008	.008	.008	.008	.007	.010	24
19	.004	.004	.004	.004	.004	.011	.026	.025	.022	.016	.032	.019	.008	.012	.019	.020	.009	.040	.020	.015	.009	.000	.000	.000	.013	24
20	.002	.002	.002	.002	.002	.007	.008	.013	.012	.027															.008	10
21							.012	.006	.004	.002	.002	.004	.000	.000	.004	.020	.000	.000	.002	.002	.000	.011	.077	.039	.009	18
22	.035	.027	.024	.032	.052	.090	.102	.061	.017	.015	.014	.015	.012	.009	.012	.004	.002	.016	.004	.002	.022	.087	.040	.004	.029	24
23	.000	.002	.001	.006	.004	.002	.009	.016	.041	.039	.034	.011	.005	.006	.009	.013	.004	.001	.001	.001	.001	.001	.002	.001	.009	24
24	.004	.004	.001	.002	.002	.010	.015	.017	.021	.010	.006	.006	.004	.003	.006	.009	.004	.004	.004	.003	.003	.004	.002	.001	.006	24
25	.001	.001	.003	.001	.002	.003	.005	.007	.008	.013	.016	.009	.015	.010	.012	.009	.008	.008	.007	.001	.001	.003	.060	.066	.011	24
26	.027	.019	.025	.021	.012	.013	.015	.046	.088	.108	.113	.110	.133	.153	.102	.087	.113	.065	.080	.024	.040	.075	.071	.072	.067	24
27	.057	.040	.057	.067	.057	.077	.083	.082	.092	.072	.113	.083	.062	.067	.090	.075	.037	.042	.029	.030	.026	.032	.032	.062	.061	24
28	.065	.057	.060	.062	.026	.042	.118	.088		.008	.005	.005	.007	.008	.011	.008	.009	.009	.008	.005	.004	.004	.006	.003	.027	23
29	.001	.002	.001	.001	.002	.006	.021	.016		.026	.018	.015	.012	.010	.009	.010	.009	.004	.004	.005	.005	.013	.008	.003	.009	23
30	.001	.002	.002	.002	.004	.005	.011	.020	.043	.040	.050	.080	.026	.018	.013	.020	.013	.003	.003	.003	.004	.004	.004	.005	.014	24
31	.011	.035	.026	.008	.011	.036	.075	.088	.113	.103	.110	.100	.090	.095	.075	.020	.014	.010	.004	.003	.007	.007	.008	.003	.044	24
AVG	.031	.032	.035	.030	.028	.042	.047	.047	.049	.042	.038	.035	.032	.033	.036	.034	.038	.031	.031	.025	.021	.027	.029	.032	.038	
NO.	30	30	30	30	28	30	30	30	28	30	29	30	30	30	30	30	30	29	29	30	30	30	30	30		713
MAX	.162	.127	.137	.111	.158	.148	.182	.183	.163	.132	.121	.110	.133	.153	.142	.152	.183	.152	.162	.147	.127	.092	.117	.142	.183	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
110 S. ELWOOD ST; TULSA, OK.
(373000096A051)

NITRIC OXIDE
#760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.002	.007	.002	.004	.015	.016	.012	.018	.021	.006	.013	.036	.045	.035	.026	.020	.010	.003	.001	.001	.002	.001	.011	.075	.014 24
2	.045	.031	.036	.009	.018	.016	.037	.048	.031	.038	.026	.050	.015	.026	.018	.006	.005	.001	.001	.003	.005	.008	.125	.135	.031 24
3	.048	.046	.051	.026	.018	.003	.005	.016	.036	.033	.016	.021	.013	.055	.056	.002	.000	.000	.000	.000	.000	.000	.000	.000	.017 24
4	.002	.000	.016	.021	.001	.001	.002	.017	.016	.011	.013	.027	.010	.003	.000	.000	.002	.001	.000	.001	.001	.002	.002	.001	.004 24
5	.002	.004	.001	.002	.002	.001	.000	.000	.003	.002	.003	.002	.002	.003	.002	.003	.003	.003	.008	.002	.002	.005	.002	.002	.002 24
6	.001	.001	.000	.000	.002	.009	.008	.026	.019	.010	.007	.007	.006	.007	.007	.008	.008	.004	.005	.006	.011	.008	.007	.006	.007 24
7	.004	.005	.004	.004	.005	.018	.051	.033	.013	.008	.003		.011	.008	.007	.008	.007	.004	.005	.008	.011	.018	.004	.008	.011 23
8	.038	.031	.016	.043	.016	.041	.068	.018	.025	.010	.060	.058	.040	.018	.036	.016	.020	.003	.002	.002	.003	.033	.038	.020	.027 24
9																									0
10							.007	.005	.008	.009	.019	.007	.005	.003	.003	.002	.000	.000	.001	.001	.002	.003	.003	.003	.004 18
11	.007				.000	.004	.003	.005	.004	.004	.002	.003	.005	.000	.000	.002	.003	.000	.000	.000	.000	.000	.004	.024	.003 21
12	.024	.027	.014	.012	.009	.007	.020	.041	.049	.065	.061	.074		.096	.091	.098	.092	.079	.061	.076	.074	.049	.024	.041	.051 23
13	.049	.041	.007	.024	.012	.019	.029	.048	.029	.038			.005	.018	.017	.024	.012	.004	.000	.000	.003	.002	.002	.000	.000 .016 23
14	.000	.000	.000	.000	.001	.002	.009	.010	.010	.008	.011	.004	.007	.004	.006	.006	.009	.002	.002	.001	.001	.000	.001	.001	.004 24
15	.000	.001	.000	.000	.000	.013	.044	.044	.029	.029	.017	.013	.004	.004	.004	.007	.009	.001	.000	.001	.001	.000	.000	.000	.009 24
16	.000	.014	.066	.014	.001	.006	.054	.108	.083	.046	.014	.029	.064	.078	.079	.064	.054	.044	.025	.054	.049	.031	.029	.005	.042 24
17	.014	.024	.049	.014	.031	.056	.074	.026	.106	.103	.123	.113	.103	.088	.098	.066	.083	.060	.078	.049	.074	.075	.039	.066	.067 24
18	.036	.083	.177	.153	.133	.117	.074	.133	.148	.098	.153	.138	.103	.108	.098	.113	.064	.000	.004	.002	.005	.005	.005	.002	.081 24
19	.001	.002	.006	.008	.004	.004	.014	.035	.019	.010	.009	.011	.008	.010	.008	.005	.010	.009	.011	.003	.010	.019	.018	.061	.012 24
20	.004	.016	.009	.025	.000	.108	.172	.229	.069	.069	.051	.058	.051	.009	.006	.004	.003	.001	.000	.000	.001	.000	.000	.000	.036 24
21	.004	.015	.061	.061	.074	.046	.049	.024	.033	.020	.029	.003	.007	.015	.020	.024	.040	.035	.017	.019	.030	.048	.043	.049	.033 24
22	.074	.007	.000	.002	.000	.000	.007	.003	.000	.009	.039	.025	.034	.036	.009	.091	.043	.000	.000	.000	.000	.000	.006	.005	.014 24
23	.017	.011	.018	.017	.036	.024	.039	.059	.093	.123	.133	.139	.029	.083	.085	.074	.075	.048	.054	.078	.085	.078	.047	.086	.049 24
24	.086	.047	.001	.001	.002	.002	.002	.007	.013	.017	.012	.004	.001	.002	.002	.002	.001	.001	.004	.016	.039	.034	.029	.023	.014 24
25	.019	.012	.000	.020	.009	.018	.011	.010	.074	.013	.001	.001	.000	.000	.000	.000	.000	.001	.002	.001	.002	.000	.000	.000	.007 24
26	.000	.000	.001	.000	.014	.016	.048	.088	.033	.031	.049	.044	.034	.032	.029	.040	.106	.059	.004	.013	.022	.018	.009	.029	.030 24
27	.076	.051	.043	.009	.003	.001	.011	.015	.015	.006	.005	.003	.002	.002	.002	.009	.011	.002	.005	.003	.002	.003	.002	.001	.012 24
28	.001	.000	.000	.000	.000	.001	.004	.006	.002	.002	.004	.004	.002	.002	.006	.006	.006	.001	.000	.000	.000	.001	.000	.001	.002 24
29	.001	.001	.000	.000	.000	.007	.017	.026	.017	.012	.009	.006	.004	.000											.007 19
30																									0
AVG	.021	.018	.022	.017	.015	.020	.031	.039	.035	.029	.032	.033	.023	.025	.026	.024	.025	.014	.011	.013	.016	.017	.018	.029	.023
NO.	27	26	26	26	27	27	28	28	28	28	27	27	27	28	27	27	27	27	27	27	27	27	27	27	650
MAX	.086	.083	.177	.153	.133	.117	.172	.229	.148	.123	.153	.138	.103	.108	.098	.113	.106	.078	.078	.078	.085	.078	.125	.135	.229

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
9616 E. 15TH ST.
(373000997A051)

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

JUL 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12	1 PM	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.003	.003	.004	.003	.005	.004	.011	.030	.022	.027	.029	.016	.013												.013	13
2												.003													.003	1
3																		.003	.003	.003	.005	.004			.004	5
4																										0
5																										0
6																										0
7																										0
8	.000	.000	.000	.000	.000	.000	.000											.000	.000	.000	.000	.002	.003	.004	.001	7
9	.000	.000	.000	.000	.000	.000	.000	.000	.005	.004	.001	.000	.000	.000	.000	.001	.010	.004	.002	.003	.004	.001	.002	.005	.002	24
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000						.000	18
12																										0
13												.001	.001	.004	.004	.004	.004	.004	.004	.004	.004		.004	.004	.004	17
14	.001	.001	.001	.001	.001	.004	.004	.011	.006	.004	.001	.001	.004	.004	.001	.001	.001	.001	.001	.001		.001	.001	.001	.003	23
15	.001	.001	.001	.001	.001	.001	.006	.006	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.001	.001	.001	.001	.001	.001	.003	24
16	.001	.001	.001	.001	.001	.001	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.009	.006	.006	.004	.001	24
17	.004	.004	.004	.004	.004	.004	.004	.004	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
18	.000	.000	.000	.000	.000	.000	.006	.004	.000		.000	.000	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	23
19	.000	.000	.000	.000	.000							.001	.001			.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	16
20	.000	.000	.000	.000	.000	.000	.003	.003	.003		.001	.000	.000	.000	.001	.001	.003	.001	.001	.001	.001	.001	.000	.000	.001	23
21	.000	.000	.000	.000	.000	.000	.003	.003	.003	.003	.001	.001	.001	.001	.001	.001	.003	.004	.003	.001	.004	.004	.003	.001	.002	24
22	.000	.000	.000	.000	.000	.000	.006	.004	.003		.001	.001	.000	.000	.000	.000	.003	.001	.001	.001	.003	.001	.003	.003	.002	23
23	.000	.000	.000	.000	.001	.001	.006	.006	.001	.000	.001	.001	.000	.000	.000	.000	.000	.000	.001	.001	.003	.004	.001	.000	.001	24
24	.000	.000	.000	.000	.000	.000	.000	.000	.000									.000	.000	.000	.000	.000	.000	.000	.000	18
25	.000	.000	.000	.000	.000	.000	.000	.001	.003	.000	.001	.001	.001	.001											.001	14
26	.000	.000	.000	.000	.000	.001	.011	.000	.001	.001		.003	.004	.003	.001	.001	.001	.003	.003	.003	.003	.001	.001	.001	.002	23
27	.000	.000	.000	.001	.001	.001	.019	.036	.019	.008		.011													.009	11
28										.001	.003	.001			.003	.003	.003	.003	.001	.001	.010	.003	.001	.001	.003	13
29	.004	.004	.004	.004	.005	.005	.016	.008	.006	.004	.004	.004	.004	.004	.004	.004	.004	.004	.005	.003	.005	.005	.004	.003	.003	24
30	.000	.000	.000	.000	.000	.000	.001	.003	.001	.001	.003	.002	.002	.002	.003	.003	.004	.005	.005	.005	.006	.005	.002	.002	.002	24
31	.000	.000	.000	.000	.001	.002	.004	.005	.004	.005	.003	.003	.003	.003	.003	.001	.002	.004	.004	.002	.002	.007	.009	.004	.003	24
AVG	.001	.001	.001	.001	.001	.001	.005	.007	.004	.004	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.003	.003	.002	.002	.002	
NO.	22	22	22	22	22	21	21	20	20	17	18	22	20	18	18	20	20	22	22	21	20	20	21	21		492
MAX	.004	.004	.004	.004	.005	.005	.019	.036	.022	.027	.029	.016	.013	.004	.004	.004	.010	.004	.009	.009	.010	.008	.009	.005	.036	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
*616 E. 15TH ST.
(373000997A05)

NITRIC OXIDE
*260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.001	.000	.000	.000	.000	.007	.073	.068	.026		.014	.006	.004	.001	.005	.004	.006	.003	.006	.029	.036	.038	.031	.004	.016	23
2	.000	.000	.001	.000	.002	.001	.024	.025	.014		.003	.003	.005	.002	.002	.002	.003	.003	.002	.002	.002	.002	.001	.001	.004	23
3	.000	.000	.000	.000	.000	.000	.003	.007	.013		.003	.001	.000	.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.001	23
4	.000	.000	.000	.000	.000	.000	.008	.037	.017		.005	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	23
5	.000	.000	.000	.000	.000	.000	.001	.003	.001		.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.001	.000	.000	23
6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003				.001	.002	.001	.000	.000	21
8	.000	.000	.000	.000	.000	.000	.000	.000	.000		.002	.003	.004	.004	.003	.003	.004	.003	.003	.002	.002	.002	.002	.002	.002	24
9	.001	.001	.001	.002	.002	.002	.004	.004	.005	.004	.005	.004	.003	.003	.004	.004	.004	.005	.004	.005	.004	.004	.005	.004	.004	24
10	.002	.002	.002	.002	.002	.002	.005	.006	.006		.003	.002	.001	.001	.001	.002	.001	.000	.000	.000	.000	.000	.000	.000	.002	23
11	.000	.000	.001	.001	.001	.003	.012	.011	.005		.010	.009	.007	.004	.005	.006	.007	.008	.007	.006	.004			.003	.005	21
12	.002	.002	.002	.002	.003	.003											.004	.005	.006	.004	.003	.002	.002	.002	.003	14
13	.000	.000	.000	.000	.001	.001	.002	.003	.003	.002	.002	.003	.002	.010	.012	.009	.006	.004	.003	.002	.002	.001	.001	.002	.003	24
14	.000	.000	.000	.000	.000	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	.003	.003	.004	.003	.002	.002	.002	.003	24
15	.001	.001	.001	.002	.002	.009	.019	.015	.013	.004		.002	.002	.002	.003	.003	.004	.005	.006	.006	.012	.010	.005	.002	.006	23
16	.002	.001	.001	.001	.001	.001	.004	.004	.003		.003	.003	.003	.002	.002	.003	.008	.006	.006	.008	.010	.007	.004	.004	.004	23
17	.001	.001	.000	.000	.001	.002	.008	.012	.010	.012	.010	.010	.008	.009	.008	.007	.008	.006	.007	.005	.010	.011	.003	.002	.006	24
18	.001	.001	.001	.001	.001	.012	.051	.036	.015		.004	.004	.005	.006	.005	.004	.009	.007	.012	.010	.009	.006	.006	.003	.009	23
19	.001	.001	.001	.001	.002	.005	.022	.017	.012		.025	.020	.009	.012	.013	.009	.007	.003	.001	.001	.001	.002	.002	.002	.007	23
20	.001	.001	.001	.001	.001	.002	.005	.005	.004	.002	.004	.003	.003	.002	.003	.003	.003	.007	.009	.009	.022	.010	.002	.000	.008	24
21	.000	.000	.000	.000	.000	.000	.003	.005	.003	.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.007	.003	.003	.000	.001	.002	24
22	.000	.003	.001			.090	.093	.084	.037	.007	.003	.002	.003	.003	.003	.003	.003	.004	.002	.003	.002	.001	.001	.006	.016	22
23	.000	.001	.000	.000	.001	.002	.006	.009	.005	.003	.002	.002	.003	.002	.002	.002	.003	.003	.005	.004	.005	.007	.001	.000	.003	24
24	.000	.000	.000	.000	.001	.004	.027	.025	.021	.017	.006	.004	.004	.004	.004	.005	.005	.004	.004	.006	.004	.003	.001	.000	.006	24
25	.001	.001	.001	.001	.001	.001	.003	.002	.002		.003	.003	.002	.002	.002	.003	.003	.002	.002	.002	.001	.001	.001	.001	.002	23
26	.000	.000	.001	.001	.001	.001	.001	.004	.004	.005	.002	.002	.002	.002	.001	.001	.001	.002	.001	.002	.002	.001	.001	.001	.002	24
27	.000	.000	.000	.000	.000	.000	.001	.001	.001		.002	.002	.003	.003	.002	.002		.008	.007	.006	.007	.008	.005	.001	.003	22
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.004	.010	.013	.013	.009	.010	.009	.004	.000	.000	.000	.000	.003	24
29	.000	.000	.000	.001	.001	.002	.016	.019	.016	.022	.018	.019	.010	.009	.003	.012			.006	.012	.034	.016	.011	.004	.010	22
30	.001	.001	.001	.001	.001	.002	.016	.018	.007	.004	.006	.005	.004	.003	.002	.003	.005	.004	.003	.002	.002	.001	.002	.001	.004	24
31	.001	.001	.001	.001	.001	.001	.003	.003	.004	.002	.002	.002	.002	.002	.002	.003	.003	.002	.002	.002	.002	.002	.006	.003	.002	24
AVG	.001	.001	.001	.001	.001	.005	.014	.014	.008	.005	.005	.004	.003	.003	.003	.004	.004	.004	.004	.005	.006	.005	.003	.002	.004	
NO.	31	31	31	30	30	31	30	30	30	17	29	30	30	30	30	30	29	29	30	30	31	30	30	31		710
MAX	.002	.003	.002	.002	.003	.090	.093	.084	.037	.022	.025	.020	.010	.012	.013	.013	.009	.010	.012	.029	.036	.038	.031	.006	.093	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
9616 E. 15TH ST.
(373000997A05)

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.000	.000	.000	.003	.009	.017	.011	.021	.010	.008	.003	.002	.002	.002	.003	.003	.004	.004	.005	.014	.021	.018	.001	.000	.007	24
2	.000	.000	.000	.000	.001	.003	.050	.034	.011	.005	.006	.002	.002	.003	.002	.004	.005	.005	.009	.014	.041	.022	.028	.036	.012	24
3	.004	.005	.005	.012	.022	.023	.020	.008	.008	.004	.003	.002	.001	.002	.002	.003	.004	.004	.007	.005	.006	.017	.013	.010	.012	.008	24
4	.005	.003	.001	.001	.001	.001	.001	.001	.002	.004	.003	.001	.001	.001	.001	.002	.002	.002	.002	.003	.002	.004	.003	.001	.002	24
5	.001	.001	.001	.001	.001	.001	.007	.002	.003	.003	.004	.004	.005	.005	.003	.004	.005	.007	.008	.006	.006	.005	.001	.002	.003	24
6	.002	.002	.001	.001	.001	.003	.031	.033	.014	.012	.007	.004	.003	.003	.003	.005	.005	.004	.005	.005	.009	.012	.005	.003	.007	24
7	.003	.002	.001	.001	.002	.002	.037	.046	.018	.015	.006	.005	.004	.005	.004	.005	.005	.005	.008	.017	.021	.014	.002	.004	.010	24
8	.011	.005	.004	.005	.007	.015	.032	.063	.011	.002	.005	.003	.002	.001	.001	.002	.002	.002	.003	.001	.001	.001	.001	.001	.008	24
9	.001	.001	.001	.001	.001	.001	.006	.018	.009	.010	.004	.002	.003	.003	.003	.005	.005	.005	.004	.005	.004	.004	.003	.002	.004	24
10	.001	.001	.001	.001	.001	.002	.010	.018	.019	.027	.029	.030	.017	.009	.009	.008	.010				.010	.020	.013	.003	.011	21
11	.010	.003	.001	.000	.001	.001	.001	.001	.005	.003	.004	.003	.005	.008	.004	.003	.004	.002	.001	.001	.001	.001	.001	.001	.003	24
12	.000	.000	.000	.000	.001	.001	.008	.006	.002		.001	.001	.001	.001	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
13	.001	.001	.001	.001	.001	.003	.004	.010	.005		.015	.015	.016	.016	.011	.010	.009	.008	.008	.007	.007	.006	.006	.006	.007	23
14	.001	.001	.001	.001	.001	.003	.006	.039	.007		.005	.006	.006	.005	.006	.007	.007	.006	.005	.004	.003	.002	.001	.001	.004	23
15	.001	.001	.001	.001	.001	.002	.011	.022	.023	.011	.011	.012	.006	.005	.003	.002	.003	.008	.015	.015	.016	.008	.001	.001	.007	24
16	.000	.000	.000	.000	.000	.016	.066	.106	.111	.067	.035	.009	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.017	24
17	.001	.001	.001	.001	.001	.001	.001	.003	.004	.008	.007	.007	.009	.009	.003	.006	.008	.009	.011	.012	.013	.020	.003	.001	.006	24
18	.001	.001	.001	.001	.001	.001	.002	.005	.003	.002	.002	.004	.004	.003	.001	.001	.001	.001	.002	.002	.003	.002	.002	.001	.002	24
19	.001	.001	.001	.001	.001	.003	.018	.012	.007	.006		.005	.004	.004	.004	.006	.004	.008	.020	.025	.072	.051	.035	.017	.013	23
20	.004	.001	.001	.000	.001	.017	.191	.146	.056	.006	.003	.002	.002	.002	.003	.004	.005	.002	.006	.002	.001	.001	.001	.000	.019	24
21	.000	.000	.000	.000	.000	.000	.002	.004	.002	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
22					.001	.003	.008	.016	.007	.003			.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.003	18
23	.001	.001	.001	.001	.001	.001	.001	.001	.003	.002	.001	.001	.003	.002	.002	.002	.002	.001	.002	.002	.002	.001	.002	.002	.002	24
24	.002	.001	.001	.001	.001	.002		.012	.014	.019	.016	.012	.009	.008	.007	.011	.011	.013	.051	.054	.055	.096	.052	.056	.022	23
25	.062	.057	.006	.001	.001	.001	.004	.005	.004	.002	.002	.002	.001	.001	.001	.001	.002	.002	.002	.002	.002	.003	.002	.002	.007	24
26	.001	.001	.001	.001	.002	.011	.066	.087	.039	.006	.003	.003	.002	.002	.002	.002	.002	.002	.003	.003	.001	.001	.001	.001	.010	24
27	.001	.001	.001	.001	.002	.002	.004	.010	.004	.009	.011	.004	.004	.004	.003	.006	.007	.008	.007	.009	.008	.005	.004	.003	.005	24
28	.001	.002	.001	.001	.001	.002	.009	.007	.005	.007	.006	.006	.008	.008	.005	.006	.006	.006	.005	.004	.003	.002	.002	.002	.004	24
29	.001	.001	.001	.001	.001	.003	.012	.017	.005	.005	.003	.004	.005	.001	.003	.003	.004	.007	.017	.012	.014	.010	.002	.003	.006	24
30	.001	.001	.000	.000	.000	.001	.008	.010																	.003	8
AVG	.004	.003	.001	.001	.002	.005	.021	.024	.014	.010	.007	.005	.004	.004	.003	.004	.004	.005	.007	.008	.012	.011	.006	.006	.007	
NO.	29	29	29	29	30	30	29	30	29	26	27	28	29	29	29	29	29	28	28	28	29	29	29	29		690
MAX	.062	.057	.006	.012	.022	.023	.191	.146	.111	.067	.029	.030	.017	.016	.011	.011	.011	.013	.051	.054	.072	.096	.052	.056	.191	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020896AD5)

NITRIC OXIDE
N240114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUN 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1																									
2																									0
3																									0
4																									0
5									.003	.003	.003	.002	.003	.003	.003	.007	.003	.002	.004	.008				.004	8
6	.002	.002	.002	.002	.002	.002	.002	.004	.005	.004	.004	.003	.002	.002	.002	.002	.003	.004	.004	.002	.002	.002	.002	.002	16
7	.002	.002	.002	.003	.006	.006	.006	.006	.006	.005	.004	.005	.002	.002	.004	.006	.007	.008	.006	.008	.007	.005	.005	.002	.005	24
8	.003	.002	.002	.002	.002	.002	.002	.002	.002								.002	.002	.002	.002	.002	.002	.002	.002	.002	17
9	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	24
10	.002	.002	.002	.002	.002	.003	.004	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	24
11	.002	.002	.002	.002	.002	.002	.004	.003	.003			.004	.003	.003	.004	.004	.005	.005	.004	.004	.004	.004	.004	.004	.004	22
12	.003	.003	.004	.004	.003	.004	.008	.006	.006		.007	.006	.006	.006	.005	.006	.007	.005	.004	.004	.004	.004	.003	.004	.005	23
13	.003	.002	.002	.002	.002	.003	.005	.007	.007		.005	.006	.006	.006	.004	.006	.007								.005	16
14	.008	.009	.012	.013	.018	.007	.013	.015	.009		.004	.006	.006	.006	.004	.006	.004	.004	.004	.003	.003	.004	.004	.004	.007	23
15	.002	.003	.002	.002	.002	.022	.012	.014	.015			.002	.002	.002	.002	.002	.003	.004	.004	.004	.004	.005	.005	.001	.005	22
16	.008	.008	.005	.006	.005	.005	.017	.009	.007		.004	.005	.006	.006	.006	.006	.006	.004	.006	.005	.005	.004	.005	.005	.006	23
17	.001	.002	.002	.002	.002	.002	.002	.003	.005	.004	.005	.006	.004	.004	.003	.001	.004	.004	.005	.003	.002	.002	.008	.008	.004	24
18	.004	.002	.003	.004	.004	.014	.022	.007	.008		.003	.004	.004	.002	.002	.002	.003	.003	.002	.001	.001	.003	.007	.001	.005	23
19	.007	.007	.005	.002	.003	.001	.001	.002	.003	.001	.001	.001		.002	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	23
20	.003	.003	.003	.003	.003	.003	.003	.005	.006	.007	.004	.007	.007	.007	.007	.007	.006	.006	.006	.006	.004	.006	.006	.003	.005	24
21	.004	.004	.004	.004	.004	.004	.007	.007		.002	.000	.000	.000	.000	.000	.004	.004	.007	.007	.002	.009	.004	.002	.002	.004	23
22	.002	.001	.001	.002	.000	.000	.000	.000	.000	.000	.009	.005	.003	.003	.003	.005	.005	.005	.005	.007	.007	.005	.005	.005	.003	24
23	.002	.003	.002	.005	.005	.005	.006	.005	.005	.009	.005	.003	.003	.003	.003	.001	.003	.005	.003	.003	.003	.003	.003	.003	.004	24
24	.002	.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.005	.005	.005	.003	.003	.002	.003	.003	.002	.002	.002	.002	.002	.003	24
25	.002	.002	.002	.002	.002	.002	.002	.003	.003	.005	.005	.003	.003	.005	.003	.006	.005	.003	.002	.002	.002	.002	.002	.002	.003	24
26	.002	.002	.001	.001	.001	.002	.002	.002	.002	.002	.002	.002	.002	.003	.005	.005	.003	.005	.005	.002	.002	.002	.002	.002	.002	24
27	.003	.002	.002	.002	.004	.004	.007	.006	.008	.007	.004	.009	.009	.002	.001	.001	.001	.001	.001	.009	.009	.002	.001	.001	.004	24
28	.001	.001	.001	.003	.008	.010	.016	.018	.012																.008	9
29										.000	.000	.001	.001	.000	.002	.000	.000	.000	.000	.000	.001	.000	.000	.001	.000	15
30	.001	.001	.001	.001	.001	.001	.001	.003	.001	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.001	.001	.001	.001	.001	.002	24
31	.003	.003	.003	.003	.003	.003	.003	.005	.005	.003	.001	.001	.002	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.003	.002	24
AVG	.003	.003	.003	.003	.004	.004	.006	.006	.005	.003	.004	.004	.004	.003	.003	.004	.004	.004	.003	.003	.004	.003	.003	.003	.004	
NO.	25	25	25	25	25	25	25	25	25	18	23	25	24	26	26	26	27	26	24	24	26	25	25	25		599
MAX	.008	.009	.012	.013	.018	.022	.022	.018	.015	.009	.009	.009	.009	.007	.007	.006	.007	.008	.007	.009	.009	.006	.008	.008	.022	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
4760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020996A05)

1-HOUR DATA LISTING

AUG 1977

DAY	AM												PM											DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.002	.002	.002	.002	.003	.008	.010	.014	.006	.003	.002	.002	.000	.000	.000	.002	.002	.002	.002	.002	.008	.010	.008	.014	.006	24
2	.014	.009	.004	.004	.004	.005	.009	.004	.009	.005	.004	.002	.002	.002	.001				.003	.005	.006	.008	.009	.008	.006	21
3	.007	.006	.005	.006	.007	.009	.007	.009	.007	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.005	.005	.005	.005	24
4	.006	.006	.006	.006	.006	.006	.006	.006	.006	.000	.000	.000	.001	.004	.004	.005	.005	.005	.005	.005	.005	.005	.005	.005	.004	24
5	.004	.004	.004	.004	.004	.004	.007	.006	.006	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	24
6	.001	.000	.000	.000	.000	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	24
7	.000	.000	.000	.000	.001	.001	.001	.001	.001	.004	.004	.004	.004	.004	.004	.003	.002	.002	.002	.004	.004	.002	.002	.002	.002	24
8	.001	.001	.001	.001	.001	.001	.005	.004	.004	.004	.004	.006	.006	.006	.004	.004	.004	.004	.005	.005	.005	.005	.005	.005	.004	24
9	.005	.005	.005	.005	.005	.006	.006	.006	.006	.004	.004	.002	.002	.002	.002	.004	.004	.002	.002	.006	.004	.002	.001	.004	.004	24
10	.001	.001	.001	.001	.001	.004	.004	.004	.006	.001	.000	.000	.000	.000	.001	.001	.000	.000	.000	.004	.004	.001	.001	.001	.002	24
11	.000	.000	.000	.000	.000	.006					.002	.000	.000	.000	.000	.000	.000	.004	.000	.000	.000	.000	.000	.000	.001	20
12	.002	.002	.002	.002	.003	.006	.006	.006	.006	.006	.004	.002	.002	.001	.004	.007	.007	.008	.007	.007	.006	.005	.007	.007	.005	24
13	.011	.011	.007	.007	.007	.007	.007	.007	.007	.006	.007	.006	.006	.006	.001	.001	.001	.001	.000	.001	.001	.001	.001	.001	.004	24
14	.000	.000	.000	.000	.002	.003	.003	.002	.004	.006	.006	.004	.004	.003	.003	.001	.002	.004	.006	.006	.006	.006	.006	.006	.004	24
15	.005	.005	.005	.005	.005	.009	.010	.008	.010	.006	.005	.004	.003	.002	.002	.002	.002	.002	.002	.005	.004	.004	.006	.005	.005	24
16	.005	.006	.005	.005	.005	.005	.009	.009	.007	.006	.006	.006	.005	.005	.005	.005	.005	.004	.007	.009	.004	.002	.001	.002	.005	24
17	.003	.003	.003	.003	.003	.003	.004	.003	.003	.006	.006	.006	.006	.004	.004	.004	.004	.004	.004	.006	.006	.008	.006	.006	.004	24
18	.004	.006								.003	.002	.002	.001	.000	.000	.000	.000	.000	.001	.002	.001	.001	.001	.001	.002	17
19	.000	.000	.001	.002	.001	.001	.000	.001	.001	.002	.000	.002	.002	.001	.001	.000	.000	.000	.000	.001	.001	.002	.002	.004	.001	24
20	.003	.001	.001	.002	.002	.001	.001	.001	.001	.004	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.003	.016	.026	.003	24
21	.016	.017	.002	.002	.006	.004	.002	.001	.003	.001	.000	.002	.000	.000	.002	.000	.000	.000	.001	.004	.021	.011	.004	.002	.004	24
22	.002	.002	.002	.002	.009	.027	.029	.005	.006	.002	.002	.002	.001	.001	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.004	24
23	.000	.000	.000	.000	.000	.008	.003	.006	.005	.002	.002	.004	.001	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.001	24
24	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.003	.003	.003	.003	.001	24
25	.001	.001	.001	.002	.002	.002	.002	.002	.001	.001	.000	.000	.001	.001											.001	14
26	.006	.006	.006	.006	.006	.007	.008	.008	.008	.008	.008	.007	.006	.007	.007	.007									.007	16
27															.003	.003	.003	.004	.003	.002	.000	.000	.000	.000	.002	10
28	.000	.000	.000	.000	.000	.000	.000	.003	.004	.001	.001	.000	.000	.000	.000	.003	.000	.000	.001	.000	.000	.000	.000	.000	.001	24
29	.000	.000	.000	.000	.000	.000	.002	.002	.002	.006	.006	.008	.006	.000	.000	.003	.001	.000	.001	.001	.006	.008	.021	.028	.004	24
30	.028	.017	.009	.011	.022	.013	.042	.016	.011	.006	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.007	24
31	.000	.000	.000	.000	.000	.003	.005	.007	.003	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.000	.019	.019	.002	24
AVG	.004	.004	.002	.003	.004	.005	.007	.005	.005	.004	.003	.003	.002	.002	.002	.002	.002	.002	.002	.003	.004	.004	.004	.005	.003	
NO.	30	30	29	29	29	29	28	28	28	29	30	30	30	30	30	29	28	28	29	29	29	29	29			698
MAX	.028	.017	.009	.011	.022	.027	.042	.016	.011	.008	.008	.008	.006	.007	.007	.007	.007	.008	.007	.009	.021	.040	.021	.028	.042	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020990AA05)

NITRIC OXIDE
4260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.011	.007	.002	.004	.004	.002	.003	.004	.002	.000	.000	.002	.002	.002	.002	.000	.002	.000	.002	.002	.003	.004	.008	.008	.003 24
2	.009	.008	.011	.015	.012	.050	.100	.018	.011	.002	.002	.003	.000	.000	.000	.000	.000	.001	.001	.010	.004	.020	.034	.012	.013 24
3	.003	.001	.002	.001	.005	.027	.051	.018	.007	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.012	.012	.006 24
4	.004	.007	.007	.004	.005	.012	.009	.007	.005	.005	.004	.004	.008	.006	.007	.008	.008	.008	.008	.008	.008	.008	.004	.004	.006 24
5	.007	.007	.007	.007	.007	.007	.007	.007	.007	.003	.003	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.009	.006	.006	.004 24
6	.002	.002	.004	.004	.007	.004	.014	.007	.004	.004	.004	.004	.003	.003	.003	.004	.004	.004	.017	.022	.016	.007	.007	.007	.006 24
7	.006	.005	.007	.007	.022	.036	.027	.014	.007	.002	.002	.002	.002	.002	.002	.002	.002	.002	.007	.009	.003	.003	.003	.003	.007 24
8	.009	.005	.003	.007	.012	.022	.021	.027	.028	.007	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.007 24
9	.002	.002				.003	.007	.009	.002	.003	.002	.002	.002	.001	.001	.002	.005	.004	.004	.004	.004	.005	.004	.004	.004 21
10	.006	.005	.005	.005	.006	.007	.006	.007	.007	.007	.007	.006	.007	.005	.007	.003	.003	.003	.003	.005	.005	.006	.007	.011	.006 24
11	.007	.007	.005	.006	.005	.004	.003	.007	.005	.005	.005	.006	.007	.007	.006	.006	.006	.004	.004	.005	.005	.005	.005	.005	.006 24
12	.006	.006	.006	.006	.006	.006	.006	.009	.007	.003	.005	.002	.002	.002	.002	.002	.003	.005	.004	.006	.002	.003	.002	.002	.003 .004 24
13	.002	.002	.002	.002	.002	.004	.008	.004	.008	.004	.008	.004	.002	.002	.003	.002	.003	.002	.002	.002	.002	.002	.002	.002	.003 .004 24
14	.002	.002	.002	.002	.004	.008	.009	.028	.007	.006	.004	.004	.004	.003	.003	.003	.004	.003	.002	.002	.002	.002	.002	.002	.004 .004 24
15	.002	.002	.002	.002	.002	.003	.005	.008	.006		.008	.008	.006	.006	.005	.005	.005	.006	.006	.005	.007	.008	.006	.006	.005 23
16	.005	.005	.005	.005	.005	.005	.008	.010	.007	.006	.006	.007	.005	.005	.005	.004	.004	.004	.004	.003	.003	.005	.003	.003	.005 24
17	.004	.004	.004	.004	.004	.004	.004	.005	.005	.005	.004	.004	.004	.004	.005	.004	.004	.004	.005	.005	.005	.005	.005	.005	.004 24
18	.004	.004	.004	.004	.004	.004	.004	.004	.005	.004	.001	.001	.002	.001	.002	.001	.001	.001	.000	.000	.001	.001	.000	.000	.002 24
19	.002	.002	.003	.003	.003	.003	.013	.004	.005	.002	.002	.002	.003	.002	.002	.002	.003	.002	.002	.007	.012	.036	.010	.007	.004 .006 24
20	.004	.002	.002	.002	.010	.010	.037	.031	.012	.017	.005	.004	.003	.002		.002	.001	.001	.001	.001	.002	.002	.002	.002	.007 23
21	.002	.002	.002	.002	.002	.003	.004	.007	.005	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003 24
22	.002	.002	.002	.003	.002	.003	.005	.005	.005	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 24
23	.002	.002	.002	.002	.002	.002	.005	.006	.005	.005	.006	.007	.006	.007	.007	.006	.006	.005	.004	.003	.003	.004	.004	.003	.004 24
24	.004	.004	.003	.004	.005	.006	.006	.007	.006	.004	.004	.005	.005	.004	.004	.004	.005	.005	.018	.044	.014	.014	.017	.016	.009 24
25	.024	.006	.019	.010	.007	.008	.011	.014	.009	.007	.005	.005	.003	.002	.003	.003	.007	.007	.007	.008	.007	.006	.007	.007	.008 24
26	.007	.007	.007	.007	.008	.013	.016	.010	.001	.004	.000	.004	.004	.004	.004	.004	.004	.005	.004	.003	.006	.004	.003	.002	.006 24
27	.002	.002	.001	.002	.002	.001	.003	.004	.005	.005	.004	.004	.004	.004	.004	.003	.003	.004	.003	.003	.004	.004	.004	.004	.003 24
28	.005	.005	.005	.005	.007	.008	.009	.008	.007	.007	.006	.007	.006	.005	.005	.005	.004	.005	.004	.004	.004	.004	.004	.004	.005 24
29	.004	.004	.004	.004	.005	.007	.010	.009	.007	.007	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.001	.003 24
30	.001	.001	.001	.001	.001	.003	.004	.007	.007	.004	.003	.003	.002	.003	.002	.002	.003	.002	.002	.002	.002	.002	.002	.002	.003 24
AVG	.005	.004	.004	.004	.006	.009	.014	.009	.007	.005	.004	.004	.003	.003	.003	.003	.003	.003	.004	.006	.005	.005	.006	.005	.005
NO.	30	30	29	29	29	30	30	30	30	29	30	30	30	30	29	30	30	30	30	30	30	30	30	30	715
MAX	.024	.008	.019	.015	.022	.050	.100	.037	.028	.017	.008	.008	.008	.007	.007	.008	.008	.008	.018	.044	.036	.020	.034	.016	.100

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
#760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A05)

1-HOUR DATA LISTING

JUL 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
2	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
4	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 20
5	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 21
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
9	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 12
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 22
11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 19
13	.000	.000	.000	.000	.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 22
14	.000	.000	.000	.000	.000	.004	.001	.000	.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.002	.000	.000	.000	.000 21
15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 18
16	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 22
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
18	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
19	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
20	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
21	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
22	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 20
23	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
24	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
25	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
26	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 22
27	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
29	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 21
31	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
AVG	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
NO.	31	26	31	31	31	31	31	29	30	29	30	31	29	28	28	25	21	24	24	28	29	28	30	30	687
MAX	.000	.000	.000	.000	.000	.004	.001	.002	.000	.000	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.002	.000	.000	.000	.004

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A05)

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	DAILY MEAN NO.
1	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000				.000	.000	.000	.000	.000	.000	.000 21
2	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000 23
4	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000 23
5	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000 23
6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000 23
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
9	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
10	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
11	.000	.000					.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 19
12	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
13	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
16	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
18	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000 23
19	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
20	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.000	.000	.000	.000	.000	.000	.000	.000 22
21	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
22	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
23	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
24	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
25	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
26	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
27	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.000	.000	.000	.000	.000	.000	.000	.000 22
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
29	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.000	.000	.000	.000	.000	.000	.000	.000	.000 21
31	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
AVG	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
NO.	31	31	30	30	30	30	31	23	31	30	30	31	31	28	30	27	27	27	30	31	31	31	31	31	713
MAX	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
#Z60114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A051)

SEP 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
2																										0
3																										0
4																										0
5																										0
6																										0
7																										0
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.000	22
9		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	22
10	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
11	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
15																										0
16																										0
17																										0
18																										0
19																										0
20																										0
21																										0
22																										0
23	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
24	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
25	.002	.002	.001	.002	.000	.000	.000	.007	.003	.002	.002	.003	.002	.002	.002	.002	.001	.001	.001	.001	.001	.002	.001	.000	.002	24
26	.000	.000	.000	.000	.000	.000	.000	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	23
27	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
29	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	22
AVG	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
NO.	15	16	16	16	16	16	16	15	15	16	15	15	12	15	19	15	15	18	16	16	16	15	15			367
MAX	.002	.002	.001	.002	.000	.000	.000	.007	.003	.002	.002	.003	.002	.002	.002	.002	.001	.001	.001	.002	.002	.002	.002	.002	.007	

032079

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140990440051

NITRIC OXIDE
#760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	12	1	2	3	4	AM 5	6	7	8	9	10	11	12	1	2	3	4	PM 5	6	7	8	9	10	11	DAILY MEAN NO.
1																									0
2																									0
3																									0
4																									0
5																			.000	.000	.000	.000	.000	.000	0
6	.000	.000	.000	.000	.000	.000	.000	.000	.000																6
7																								.000	9
8																									0
9																									0
10												.004	.001				.007	.008	.006	.006	.006	.004	.006	.006	0
11	.007	.007	.007	.007	.006	.006	.005	.004			.005	.004	.000				.004	.006	.006	.006	.006	.006	.006	.005	19
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.000	.000	.000	.000	.000	.000	.000	22
13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000				.000	.000	.000	.000	.000	21
14	.000	.000						.009	.004		.004	.004	.003	.003	.003	.003	.000	.000	.000	.000	.000	.000	.000	.002	18
15	.000	.000	.000	.000	.000	.000	.000	.000	.000		.004	.004	.004	.004	.004	.003	.000	.000	.000	.000	.000	.000	.000	.001	23
16	.000	.000	.000	.000	.000	.000	.000	.000	.000		.004	.004	.004	.004	.004	.004	.000	.000	.000	.000	.000	.000	.000	.001	23
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.004	.002	.000	.000	.000	.000	.000	.000	.000	.000	24
18	.000	.000	.000	.000	.000	.000	.000	.000	.000		.004	.004	.004	.004	.004	.004	.003	.000	.000	.000	.000	.000	.000	.001	23
19	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.004	.004	.005	.009	.009	.004	.004			.003	.001	.002	.002	.002	22
20	.000	.000	.000	.000	.000	.000	.000	.000	.000		.004	.004	.004	.004	.004	.004	.003	.000	.000	.000	.000	.000	.000	.001	23
21	.000	.000	.000	.000	.000	.000	.000	.000	.000		.004	.004	.005	.005	.004	.000	.000	.000	.000	.000	.000	.000	.000	.001	23
22	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
23	.000	.000																						.000	2
24												.004	.000	.000	.004	.004	.000	.000	.000	.000	.000	.000	.000	.001	13
25	.000	.000	.000		.000	.000	.000	.000	.000	.000	.002	.004	.004	.005	.009	.005	.004	.004	.003	.000	.000	.000	.000	.000	23
26	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.003	.003	.000	.000	.000	.000	.000	.000	.000	.000	.002	.003	.004	23
27	.004	.004	.004	.004	.004	.004	.004	.004	.004	.003	.002	.000	.000	.000	.000	.000	.000	.000		.004	.004	.004	.004	.003	23
28	.000	.000	.000								.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.002	.000	17
29	.002	.002			.004	.004	.004	.003	.000	.000	.000	.000	.003	.003	.003	.000	.000			.004	.004	.002	.002	.002	19
30	.001	.001	.004	.004	.004	.005	.004	.004			.006	.006	.006	.005	.004	.001	.000	.000	.000	.000	.000	.001	.005	.005	22
31	.004	.002	.004	.004	.004	.005	.005	.005	.001	.001	.001	.001	.001	.002	.001	.000	.001	.001	.004	.004	.005	.005	.005	.005	.003	24
AVG	.001	.001	.001	.001	.001	.001	.001	.002	.001	.000	.002	.003	.002	.003	.003	.002	.001	.001	.001	.001	.001	.001	.002	.002	.002	
NO.	21	21	18	14	18	18	18	19	17	17	19	21	21	19	19	18	19	18	18	21	22	22	22	22		455
MAX	.007	.007	.007	.007	.006	.006	.005	.009	.004	.003	.006	.006	.006	.009	.009	.005	.007	.008	.006	.006	.006	.006	.006	.006	.009	

032228

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140994A051)

NITRIC OXIDE
42601I4
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.005	.005	.005	.005	.004	.004	.006	.004	.001		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.004	.005	.005	.002 23
2	.005	.005	.005	.006	.002	.002	.004	.002	.000		.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.001	.005	.002	.004	.002 23
3	.004	.004	.004	.005	.005	.005	.006		.004		.000	.000	.000	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.002 22
4	.001	.001	.001	.001	.001	.001	.001	.002	.004		.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001 23
5	.001	.001	.001	.001	.001	.001	.001	.001	.000		.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
6	.001	.001	.000	.000	.000	.000	.001																		.000 7
7															.007	.006	.002	.002	.002	.000	.000	.002	.002	.002	.002 10
8	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002			.000	.000	.000	.000	.000	.002 22
9	.002	.002	.002	.002	.002	.002	.002	.002	.000	.000	.000	.001	.002	.002	.002	.002	.002	.002		.001	.001	.001	.001	.001	.001 23
10					.002	.002	.006	.005	.002	.002	.000	.002	.002	.005	.005	.005	.002	.002	.002		.005	.005	.005	.005	.003 19
11	.005	.005	.005	.004	.006	.006	.006	.005	.005	.004	.005	.002	.002	.002	.002	.002	.005		.005	.005	.005	.005	.005	.005	.005 23
12	.003	.003	.003	.003	.005	.005	.006	.007	.006	.005	.006	.005	.007	.002	.003	.003	.002		.002	.002	.002	.002	.003	.002	.004 23
13	.000	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000		.002	.002	.002	.002	.002		.002	.002	.002	.002	.002	.002	.001 22
14	.002	.002	.002	.007	.002	.007	.005	.003	.003		.003	.002	.002	.003	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.003 23
15	.002	.002	.002	.006	.006	.006		.002	.002	.002	.002	.002	.003	.003	.005	.003	.002	.002	.002	.002	.002	.002	.002	.002	.003 23
16	.002	.002	.002	.002	.002	.002				.002	.000	.000	.002	.002	.002	.002	.002	.000	.001	.000	.002	.002	.002	.002	.002 21
17	.002								.003	.002	.002	.002	.002	.002	.002	.002	.000	.001	.002	.002	.002	.002	.002	.002	.002 17
18	.002	.002	.002	.002	.002	.002		.003	.003	.002	.000	.000	.000	.000	.000	.000	.000	.002	.002	.002	.002	.002	.002	.002	.001 23
19	.002	.002	.002	.002	.002	.002		.002	.002	.002	.002	.002	.002	.003	.002	.002	.002	.002	.003	.005	.002	.005	.002	.002	.002 23
20	.002	.002	.002	.002	.002	.002		.002	.002	.002	.002	.002	.002	.002	.000	.000	.000	.002	.002	.002	.002	.002	.003	.003	.002 23
21	.002	.002	.002	.002	.002	.005	.006	.005	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.007	.002	.003 24
22	.004	.005	.003	.003	.006	.017	.010	.006	.003	.002	.002	.002	.002	.002	.002	.002	.002	.003	.002	.002	.002	.002	.002	.003	.004 23
23	.002	.002	.002	.002	.002	.003	.003	.004	.005	.003	.003	.002	.002	.002	.002	.002	.002	.002	.003	.003	.006	.002	.002	.002	.003 23
24	.002	.002	.002	.003	.003	.002	.003	.005	.002	.003	.003	.002	.002	.003	.002	.002	.002		.003	.002	.003	.002	.005	.002	.003 23
25	.002	.002	.002	.005	.002	.002	.003	.005	.003	.002	.002	.002	.002	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 24
26	.002	.002	.002	.002	.002	.002	.003	.004	.003	.002	.002	.002	.003	.005	.006	.006	.007	.004	.005	.002	.002	.002	.002	.002	.003 24
27	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002			.005	.005	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 21
28	.002	.002	.002	.003	.003	.003	.003	.005	.005	.003	.005	.005	.005	.006	.005	.003	.004	.004	.005	.006	.005	.003	.002	.004	.004 24
29	.003	.003	.003	.003	.003	.005	.006	.007	.006	.007	.005	.005	.004	.005	.002	.003	.005	.002	.006	.002	.005	.007	.003	.006	.004 24
30	.007	.006	.006	.006	.006	.010	.007	.005	.005	.005	.002	.003	.003	.003	.003	.003	.003	.002	.002	.005	.005	.003	.003	.003	.004 24
31	.002	.003	.003	.003	.003	.003	.006	.007	.005	.005	.002	.003	.002	.003	.003	.003	.002	.002	.002	.002	.002	.002	.007	.003	.003 24
AVG	.003	.003	.002	.003	.003	.004	.004	.004	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.002	.003
NO.	29	28	28	28	29	29	24	24	28	23	28	27	28	29	30	30	30	24	27	29	30	30	30	30	674
MAX	.007	.006	.006	.007	.006	.017	.010	.007	.006	.007	.006	.005	.007	.005	.007	.006	.007	.004	.006	.005	.006	.007	.007	.006	.017

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
4760114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140994A05)

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.005	.003	.005	.006	.005	.007	.007	.005	.007	.007	.005	.005	.005	.005	.003	.003	.002	.002	.002	.007	.002	.005	.002	.002	.004	24
2	.008	.007	.012	.008	.006	.008	.007	.007	.009	.013	.016	.008	.007	.005	.003	.002	.003	.002	.002	.008	.005	.008	.010	.006	.007	24
3	.005	.005	.007	.002	.002	.005	.008	.007	.005	.002	.002	.002	.002	.002	.002	.005	.006	.002	.002	.002	.002	.007	.003	.005	.004	24
4	.005	.003	.002	.003	.003	.008	.007	.006	.003	.002	.002	.007	.003	.003	.003	.003	.003	.002	.003	.003	.003	.005	.003	.002	.004	24
5	.002	.002	.002	.002	.003	.002	.002	.006	.005	.008	.005	.005	.007	.007	.002	.003	.002	.008	.007	.006	.007	.007	.003	.007	.004	24
6	.002	.002	.002	.002	.002	.012	.005	.007	.005	.003	.003	.002	.002	.002	.012	.003	.007	.003	.007	.003	.002	.002	.002	.002	.004	24
7	.005	.002	.002	.005	.002	.006	.008	.012	.005	.002		.005	.003	.002	.002	.002	.002	.002	.005	.003	.008	.002	.002		.004	22
8				.003	.003	.005	.017	.007	.006	.005	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	21
9	.002	.002	.002	.002	.002	.007	.007	.005	.003	.002				.001	.000	.002	.002	.002	.002	.000	.001	.000	.000	.002	.002	21
10	.000	.001	.000	.000	.001	.001	.001	.001	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.005	.003	.003	.001	24
11	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
13	.000	.000	.000	.000	.000	.002	.001	.000	.002	.002	.002	.003	.001	.002	.001	.001	.001	.000	.001	.000	.001	.000	.000	.001	.001	24
14	.000	.001	.000	.000	.000	.000	.002	.001	.000	.000	.000	.001	.001	.001	.001	.001	.001	.000	.001	.001	.001	.000	.000	.000	.000	24
15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
16	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
18	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
19	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
20	.001	.001	.001	.000	.000	.001	.004	.005	.001	.002	.001	.000	.000	.000	.000	.000	.000	.000	.001	.001	.002	.001	.001	.004	.001	24
21	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
22	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
23	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
24	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
25	.000	.000	.000	.000	.000	.000	.001	.003	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
26	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
27	.002	.002	.002	.002	.002	.002	.004	.003	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
28	.000	.000	.000	.000	.000	.002	.003	.002	.001	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
29	.000	.000	.000	.000	.000	.000	.000	.002	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	24
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	24
AVG	.001	.001	.001	.001	.001	.002	.003	.003	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	
NO.	29	29	29	30	30	30	30	30	30	30	28	29	29	30	30	30	30	30	30	30	30	30	30	29		717
MAX	.008	.007	.012	.008	.006	.012	.017	.012	.009	.013	.016	.008	.007	.007	.012	.005	.007	.008	.007	.008	.008	.008	.010	.007	.017	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993405)

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

JUL 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1																										0
2																										0
3																										0
4																										0
5																										0
6																										
7	.000	.000	.000	.000	.000	.000	.000	.000			.001	.000	.001	.001	.003	.002	.001	.001	.001	.001	.000	.001	.001	.000	.001	10
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.000	.000	.001	.001	.000	.000	.000	.000	22
9	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	22
11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
12	.000	.000	.000	.000	.000	.000	.000	.000			.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	22
13	.000	.000	.000	.000	.000	.000	.000	.000			.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	22
14	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
15				.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	22
16	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	20
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
18	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
19	.000	.000		.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
20	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
21	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	22
22	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
23	.000	.000		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
24	.001	.001	.001	.001	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	23
25	.000	.000	.000	.000	.000	.000	.000	.000		.000	.001	.000	.000	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	24
26	.000	.000	.000	.000	.000	.000	.000		.001	.000	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
27	.000	.001	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
28	.000	.001	.001	.001	.001	.001	.002	.001	.002		.002	.001	.001	.001	.001	.001	.001	.001	.001	.001		.000	.000	.000	.001	23
29	.001	.001	.001	.001	.001	.001	.002	.002		.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001	23
30	.000	.000	.000	.000	.000	.000	.000	.000	.001		.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	23
31	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
AVG	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	
NO.	24	24	19	25	25	25	25	24	16	19	24	24	24	25	25	25	24	24	24	24	25	24	24	25		579
MAX	.001	.001	.001	.001	.001	.001	.002	.002	.002	.001	.002	.001	.002	.001	.003	.002	.002	.001	.002	.002	.001	.001	.001	.001	.003	

03207R

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A05)

NITRIC OXIDE
#260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.000	.000	.000	.000	.000	.002	.007	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 23
2	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
3	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001									.001 15
4																		.002	.001	.000	.000	.000	.000	.000	.000 7
5	.000	.000	.000	.000	.000	.000	.000	.000	.000		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.001 23
6	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.001	.001	.001 24
7	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 24
8	.001	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 24
9	.001	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 24
10	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002						.002 19
11	.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
12	.001	.001	.001	.001	.001	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.003	.001 23
13	.001	.001	.001	.001	.002	.001	.001	.001	.002		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 23
14	.002	.002	.002	.003	.002	.002	.002	.002	.003	.002	.002	.002	.002	.002	.002	.002		.002	.001	.001	.001	.001	.001	.001	.002 23
15	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001 23
16	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.002	.001	.002	.002	.001	.001	.001	.001	.001 24
17	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
18	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
19	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
20	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
21	.001	.001	.001	.001	.001	.001	.003	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.001	.001	.001	.001 24
22	.001	.001	.001	.001	.001	.003	.002	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
23	.001	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
24	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
25	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
26	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
27	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
28	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001		.002				.002	.001	.001	.002	.001	.001	.001	.001 20
29	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.000 23
31	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
AVG	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001
NO.	30	30	30	30	30	30	30	30	30	26	30	30	26	29	30	27	27	30	30	29	29	29	29	29	700
MAX	.002	.002	.002	.003	.002	.003	.007	.002	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	.002	.002	.002	.003	.007

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
42601 14
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A05)

SEP 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.000	.001	.001	.001	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.000	.001 24
2	.000	.000	.000	.000	.002	.003	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.001	.000	.000	.000	.001 24
3	.000	.000	.000	.000	.001	.001	.004	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
4	.000	.000	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.000	.000	.001 24
5	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000 24
8	.000	.000	.000	.003	.001	.005	.008	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000 24
9	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000 20
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
11	.000	.000	.001	.000	.000	.000	.000	.002	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
16	.000	.000	.000	.000	.000		.000	.000	.000	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
18	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
19	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
20	.001	.001	.001	.001	.002	.002	.016	.003	.004	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.008	.002	.001	.001	.001 .001 24
21	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001 24
22	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
23	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 25
24	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
25	.000	.000	.000	.000	.000	.000	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
26	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
27	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
29	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
AVG	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
NO.	30	30	30	30	30	29	30	30	30	30	30	30	29	30	29	30	30	29	29	29	30	30	30		713
MAX	.001	.001	.001	.003	.002	.005	.016	.003	.004	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.008	.002	.001	.001	.016	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140997A051)

NITRIC OXIDE
4260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.000	.000	.000	.000	.000	.000	.000																		.000 7
2																									0
3																									0
4																									0
5																									0
6																									0
7																									0
8																									0
9																									0
10														.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 11
11	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001 24
12	.002	.002	.002	.002	.002	.002	.003	.003		.003	.002	.002		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002 22
13	.001	.001	.001	.001	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.001 23
14	.001	.001	.002	.002	.002	.002	.004	.003	.004	.003	.002	.002	.001	.001	.001	.001			.002	.003	.003	.003	.003	.003	.002 22
15	.002	.004	.004	.003	.003	.004	.004	.005	.006	.004	.003	.003	.003	.003	.003	.003	.003					.006	.006	.006	.004 20
16	.004	.004	.004	.004	.004	.004	.006	.006	.004	.004	.004	.004	.004	.004	.004	.004	.004		.004	.004	.004	.004	.004	.004	.004 23
17	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002 24
18	.002	.002	.002	.002	.002	.002	.004	.002		.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.002 23
19	.001	.002	.002	.002	.002	.004	.004	.004			.004	.004	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 22
20	.002	.002	.002	.002	.002	.004	.004	.004		.006	.004	.004	.004	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003 23
21	.002	.002	.002	.002	.002	.004	.004	.004		.004	.004	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 23
22	.002		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 23
23	.004		.004	.004	.004	.004	.004	.005	.005	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004 23
24	.004	.004	.004	.004	.004	.004	.004	.004	.004	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002 24
25	.002		.004	.004	.004	.004	.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.002	.002 23
26	.002	.002		.002	.002	.002	.002	.002	.002	.002	.004	.004	.004	.004	.004		.004	.004	.004	.004	.004	.004	.006	.002	.003 22
27	.004	.004	.004	.004	.004	.004	.004	.004		.005	.005	.005	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004 23
28	.005		.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.002	.002			.000	.002	.002	.002	.004 21
29	.002		.004	.002	.002	.002	.004	.004	.004	.002	.002	.002	.002	.002	.002	.002	.002	.002	.004	.004	.004	.004	.004	.004	.003 23
30	.005	.005	.005	.006	.006	.006	.006	.006	.005		.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003 23
31	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.002	.002	.002	.002	.001	.002	.002	.002	.002	.002 24
AVG	.002	.002	.003	.003	.003	.003	.003	.003	.004	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.002	.003
NO.	29	17	21	22	22	22	22	21	14	19	21	21	20	22	22	21	21	19	20	20	21	22	22	22	496
MAX	.005	.005	.005	.006	.006	.006	.006	.006	.006	.006	.005	.005	.005	.005	.005	.005	.004	.004	.004	.004	.004	.006	.006	.006	.006

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992AQ51)

NITRIC OXIDE
4260114
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.002	.002	.002	.002	.002	.002	.002	.004		.004	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	23
2	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	24
3	.004	.004	.004	.005	.004	.006	.006	.004		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
4	.001	.001	.001	.001	.001	.001	.001	.001		.004	.004	.005	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
5	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
6	.001	.001	.001	.001	.001	.001	.002	.001	.001		.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
7	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002												
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.001	21
9			.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000							.000	17
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000							.000	15
11	.001	.001	.001	.001	.001	.001	.001	.001	.001		.002	.001	.001	.001	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	23
12	.001	.001	.001	.001	.001	.001	.001	.001	.001		.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
13	.001	.001	.001	.001	.001	.002	.002	.003	.003	.002	.002	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.002	.002	.003	.002	24
14	.002	.003	.003	.002	.004	.003	.004	.003	.004	.003	.003	.003	.003	.002	.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.002	24
15	.001	.001	.001	.001	.001	.001	.002	.002	.003	.003	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
16	.001	.001	.001	.001	.001	.001	.002	.002	.005	.002	.001	.001	.001	.001	.001	.001										
17	.004	.004	.002	.002	.002	.002	.002	.002		.001	.001	.001	.001	.001	.001	.001	.001	.001	.006	.006	.006	.005	.003	.004	.002	22
18	.001	.001	.001	.001	.001	.001	.001	.002		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	23
19	.001	.001	.001	.001	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001	23
20	.001	.001	.001	.001	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	23
21	.000	.000	.001	.001	.001	.001	.002	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	23
22	.001	.001	.001	.001	.001	.001	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
23	.000	.000	.000	.001	.001	.001	.001	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
24	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	23
25	.003	.003	.003	.002	.002	.002	.003	.004	.002	.002	.001	.002		.008	.006	.006	.005	.005	.005	.004	.003	.003	.003	.003	.002	22
26	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	24
27	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
28	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	24
29	.000	.000	.000	.000	.000	.001	.001	.001	.001	.001			.002	.001	.001	.001	.001	.001	.001	.001	.000	.001	.000	.000	.001	24
30	.000	.000	.000	.000	.001	.001	.002	.004	.002	.001	.001	.000	.001	.001	.001				.002	.002	.001	.001	.001	.001	.001	22
31	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000			.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	21
AVG	.001	.001	.001	.001	.001	.001	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	22
NO.	30	30	31	31	31	31	31	31	29	25	30	29	28	31	30	29	28	29	28	29	29	29	29	29	.001	
MAX	.004	.004	.004	.005	.004	.006	.006	.004	.005	.004	.004	.005	.003	.008	.006	.006	.005	.005	.006	.006	.006	.005	.003	.004	.008	707

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITRIC OXIDE
#42011
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
WASHINGTON CO
ROUTE 1, DEWEY, OK.
(373140992A051

1-HOUR DATA LISTING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
2	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
3	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
4	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
5	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
6	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
9	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
10	.000	.000				.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000 24
11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 21
12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
14	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
16	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
17	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
18	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
19	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
20	.000	.000	.000	.000	.000	.000	.000	.002	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
21	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
22	.000	.000	.000	.000	.000		.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 21
23	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 23
24	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
25	.000	.000	.000	.000	.000	.000	.000	.001	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
26	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
27	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
28	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
29	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
30	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
AVG	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
NO.	30	30	29	29	29	29	30	30	30	30	30	29	29	28	28	30	30	30	30	30	30	30	30	30	709
MAX	.000	.000	.000	.000	.000	.000	.001	.002	.002	.001	.000	.000	.000	.000	.000	.000	.002	.001	.000	.000	.000	.000	.000	.000	.002

SECTION 4.4

NITROGEN DIOXIDE MEASUREMENTS FROM THE 8-SITE RTI NETWORK

Preceding page blank

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITROGEN DIOXIDE
4Z60214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A051)

1-HOUR DATA LISTING

JUL 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.004	.004	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.004	.006	.000	.000	.000	.001 24
2	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.005	.005	.005	.002	.005	.005	.005	.002 21
3	.005	.005	.007	.007	.005	.005	.005	.005	.005	.005	.007	.005	.005	.005	.007	.007	.005	.005	.005	.005	.007	.005	.005	.005	.005 24
4	.007	.007	.007	.007	.007	.007	.007	.007	.007	.010	.010	.005	.005	.005	.005	.005	.005	.005	.007	.007	.015	.015	.017	.010	.008 24
5	.010	.010	.010	.010	.012	.015	.012	.007	.010	.007		.010	.010	.010	.012	.010	.007	.007	.007	.005	.012	.010	.010	.010	.010 23
6	.007	.005	.007	.010	.012	.012	.010	.010	.012	.007	.007		.010	.002	.005	.005	.007	.007	.007	.010	.010	.012	.010	.010	.009 23
7	.012	.012	.010	.010	.010	.012	.012	.010	.010	.010		.010	.007	.007	.007	.007	.007	.010	.007	.010	.012	.025	.030	.017	.011 23
8	.020	.017	.015	.012	.010	.010	.010	.010	.010	.010	.010		.000	.000	.002	.007	.012	.015	.017	.012	.012	.012	.010	.010	.011 23
9	.010	.010	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.010	.010	.010	.010	.007	.007	.007	.007 .008 24
10	.007	.007	.007	.007		.010	.010	.010	.007	.007	.007	.007	.007	.007	.007	.005	.007	.010	.010	.010	.010	.010	.010	.010	.001 .008 23
11	.007	.007	.007		.002	.005	.007	.007	.005	.005	.005	.002	.002	.005	.005	.005	.005	.007	.007	.007	.007	.007	.010	.010	.006 23
12	.007	.005	.005	.005	.005	.007	.010	.010	.007	.005	.007	.007	.007	.012	.007	.010		.007	.007	.005	.007	.007	.005	.005	.007 23
13	.007	.005	.005					.010		.007	.010	.007	.010	.007	.005	.007	.007	.007	.007	.007	.010	.028	.015	.010	.010 .009 19
14	.017	.025	.017	.015	.015	.015	.022	.020		.010	.012	.012	.012	.010	.007	.010	.010	.012	.010	.010	.007	.012	.007	.007	.013 23
15	.010	.010	.010	.010		.010	.012	.010	.012	.010	.010	.010	.010	.012	.010	.007	.005	.007	.010	.012	.012	.010	.007	.007	.010 23
16	.007	.007	.005	.007		.012	.010	.012	.012	.010	.012	.010	.012	.010	.007	.010	.007	.010	.010	.007	.007	.005	.005	.005	.009 23
17	.007	.010	.010	.007		.007	.007	.007	.010	.010	.007	.007	.010	.007	.010	.007	.007	.007	.012	.018	.012	.018	.012	.012	.010 23
18	.012	.015	.007	.007		.010	.015	.007	.007	.010	.005	.005	.005	.002	.005	.002	.005	.005	.012	.010	.008	.007	.015	.005	.008 23
19	.007	.005	.002	.002		.015	.012	.005	.007	.005	.007	.002	.005	.002	.002	.005	.005	.007	.005	.007	.005	.000	.002	.000	.005 23
20	.000	.000	.000	.002		.007	.005	.005	.007	.007	.007	.007	.002	.007	.005	.005	.005	.005	.002	.002	.002	.000	.002	.000	.004 23
21	.000	.000	.000	.000	.002	.007	.010	.007		.010	.007	.005	.005	.007	.002	.005	.003	.007	.005	.010	.007	.007	.015	.012	.006 23
22	.010	.007	.007	.010	.000	.020	.012	.007	.005	.002	.002	.002	.002	.000	.002	.005	.005	.002	.002	.000	.000	.000	.000	.000	.004 24
23	.000	.000	.000	.000	.000	.005	.010	.005	.002	.002	.002	.005	.002	.002	.002	.007	.010	.007	.010	.005	.007	.002	.000	.000	.003 24
24	.002	.002	.005	.005	.005	.005	.005	.003	.003	.003	.005	.005	.005	.003	.003	.003	.003	.000	.003	.003	.000	.000	.000	.003	.003 24
25	.000	.002	.002	.002	.002	.000	.005	.005	.005	.005	.005	.002	.005	.002	.000	.002	.005	.002	.010	.012	.012	.005	.005	.005	.004 24
26	.010	.010	.007	.007		.005	.005	.005	.005	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.005	.005	.005	.005	.005	.004 23
27	.007	.010	.007	.005		.010	.010	.010	.010	.012	.025	.025	.018	.007	.005	.005	.002	.002	.002	.002	.002	.002	.000	.000	.008 23
28	.000	.000	.000	.000		.002	.005	.005	.005	.002	.003	.003	.003	.003	.005	.002	.002	.002	.002	.005	.002	.002	.005	.002	.003 23
29	.002	.002	.004	.004		.011	.014	.005	.007	.006	.003	.001	.004	.002	.003	.002	.005	.007	.010	.010	.007	.003	.003	.005	.005 23
30	.005	.006	.004	.005	.001	.005	.006	.003	.004	.004	.005	.004	.002	.003	.001	.001	.001				.002	.005	.004	.002	.003 21
31	.000	.000	.001	.001	.001	.002	.003	.002	.004		.005	.003	.004	.002	.002	.002	.003	.004	.004	.008	.009	.008	.004	.006	.003 23
AVG	.006	.007	.006	.006	.005	.008	.009	.007	.007	.006	.007	.006	.006	.005	.005	.005	.005	.006	.007	.008	.008	.007	.007	.006	.006
NO.	31	31	31	29	19	30	30	31	28	30	29	29	31	30	30	30	30	30	30	30	31	31	31	31	713
MAX	.020	.025	.017	.015	.015	.020	.022	.020	.012	.012	.025	.025	.018	.012	.012	.010	.012	.015	.017	.018	.028	.025	.030	.017	.030

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A051)

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.009	.006	.010	.009		.008	.006	.009	.006	.007	.003	.002	.002	.002	.003	.003	.002	.002	.004	.011	.003	.005	.003	.002	.005 23
2	.002	.003	.009	.006		.007	.011	.008	.006	.005	.004	.003	.002	.004	.003	.003	.004	.005	.005	.006	.009	.008	.011	.012	.006 23
3	.012	.004	.003	.003	.004	.011	.013	.008	.004	.004	.005	.007	.006	.003	.003	.004	.003	.003	.002	.004	.004	.004	.004	.004	.005 24
4	.003	.002	.002	.001		.004	.004	.008	.004	.003	.004	.003	.001	.001	.001	.003	.001	.002	.002	.002	.001	.001	.001	.001	.002 23
5	.000	.000	.000	.000		.001	.002	.002	.004	.004	.007	.004	.005	.003	.009	.001	.001	.001	.001	.000	.000	.000	.000	.001	.002 23
6	.001	.001	.001	.001		.000	.001	.002	.001	.001	.001	.001	.000	.000	.001	.000	.000	.000	.001	.002	.001	.000	.000	.001	.001 23
7	.001	.001	.001	.001	.001	.002	.003	.002	.003	.001	.000	.000	.000	.000	.000	.000	.001	.001	.000	.002	.002	.001	.000	.001	.001 24
8	.000	.002	.002	.001	.003	.004	.006	.005	.004	.003	.004	.004	.001	.002	.003	.003	.002	.001	.001	.002	.004	.003	.003	.003	.003 24
9	.001	.000	.001	.001	.001	.003	.006	.032	.004	.004	.004	.004	.003	.001	.001	.002	.003	.001	.001	.002	.004	.004	.003	.003	.002 24
10	.002	.001	.000	.000		.011	.012	.009	.009	.008	.006	.005	.004	.006	.006	.004	.005	.005	.006	.004	.005	.004	.010	.007	.004 23
11	.004	.005	.007	.004	.004	.004	.005	.004	.005	.014	.010	.009	.005	.007	.005	.004	.007	.005	.010	.008	.007	.008	.008	.008	.007 24
12					.002	.005	.007	.012	.013	.014	.019	.016	.016	.014	.024	.004	.004	.003	.004	.006	.005	.006	.005	.005	.009 20
13	.004	.012	.012	.007		.002	.004	.004	.007	.006	.005	.008	.005	.004	.009	.004	.007	.003	.004	.008	.003	.004	.004	.003	.003 23
14	.003	.003	.003	.003	.004	.002	.003	.008	.004	.004	.004	.004	.005	.005	.004	.004	.003	.002	.001	.001	.003	.000	.000	.000	.003 24
15	.000	.001	.002	.003		.004	.002	.003	.000	.002	.002	.000	.000	.004	.000	.001	.000	.001	.000	.000	.000	.000	.000	.002	.001 23
16	.001	.000	.000	.000		.009	.009	.007	.009	.009	.008	.008	.007	.008	.007	.006	.007	.008	.009	.010	.009	.009	.010	.010	.007 23
17	.010	.010	.010	.009		.006	.007	.004	.002	.001	.000	.002	.009	.010	.013	.010	.007	.002	.001	.000	.000	.000	.001	.002	.005 23
18	.005	.008	.004	.004	.003	.002	.002	.002	.001	.002	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.001	.002	.003	.002	.002 .002 24
19	.002	.002	.002	.002	.000	.002	.002	.001	.002	.001	.001	.002	.001	.001	.002	.002	.001	.002	.001	.002	.002	.001	.001	.001	.001 24
20	.000	.000	.000	.000	.002	.003	.004	.005	.004	.008	.007	.005	.005	.004	.008	.006	.005	.004	.005	.006	.006	.007	.007	.004	.004 24
21	.005	.006	.008	.008	.009	.008	.008	.006	.006	.005	.006	.004	.006	.004	.004	.004	.008	.005	.006	.005	.007	.005	.005	.009	.006 24
22	.014	.015	.019	.012	.009	.014	.012	.010	.005	.002	.000	.001	.002	.001	.001	.002	.003	.000	.001	.000	.000	.005	.004	.002	.006 24
23	.005	.003	.000	.001	.000	.000	.001	.000	.001	.000	.001	.000	.000	.000	.000	.001	.000	.000	.000	.000	.002	.000	.000	.000	.001 24
24	.000	.000	.000	.000	.001	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.004	.005	.001 24
25	.001	.000	.000	.000	.001	.001	.000	.001	.002	.001	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000 24
26	.000	.000	.000	.000	.000	.001	.001	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
27	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
28	.000	.000	.001	.001	.000	.000	.000	.001			.001	.013	.017	.011	.006	.002	.000	.000	.000	.000	.004	.006	.006	.006	.003 22
29	.004	.001	.001	.001	.000	.000	.003		.008	.008	.004	.003	.003	.001	.001	.001	.001	.001	.002	.001	.001	.001	.000	.000	.002 23
30	.000	.000	.000	.000		.000	.001	.009			.000	.000	.005	.006	.006	.002	.000	.000	.000	.001	.001	.000	.001	.002	.002 21
31	.000	.000	.002	.001	.000	.000	.001	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 24
AVG	.003	.003	.003	.003	.002	.004	.004	.005	.004	.004	.003	.003	.004	.003	.004	.003	.002	.002	.002	.003	.003	.003	.003	.003	.003
NO.	30	30	30	30	20	31	31	30	29	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	724
MAX	.014	.015	.019	.012	.009	.014	.013	.032	.013	.014	.019	.016	.017	.014	.024	.010	.008	.008	.010	.011	.009	.009	.011	.012	.024

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A05)

NITROGEN DIOXIDE
4260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	.000	.000	.000	.000	.000	.000	.000	.000	.001	.002	.000	.000	.000			.001	.001	.002	.002	.003	.004	.003	.002	.002	.001	22
2	.002	.006	.005	.003	.006	.011	.006	.005	.002	.005	.003	.001	.001	.002	.001	.001	.002	.002	.003	.004	.007	.004	.003	.004	.004	24
3	.004	.003	.008	.009	.009	.013	.011	.009	.009	.004	.005	.005	.002	.002	.001	.001	.001	.002	.004	.004	.003	.003	.004	.002	.005	24
4	.007	.006	.004	.003	.003	.003	.003	.005	.003	.004	.003	.003	.001	.001	.001	.002	.001	.004	.004	.003	.007	.009	.009	.008	.004	24
5							.001	.002	.002	.003	.003	.002	.003	.004	.003	.003	.004	.005	.004	.003	.003	.008	.008	.008	.004	18
6	.008	.008	.005	.006	.009	.006	.008	.005	.004	.002	.002	.001	.000	.002	.002	.001	.003	.003	.004	.004	.003	.002	.000	.000	.004	24
7	.002	.001	.000	.000	.001	.007	.003	.004	.005	.005	.003	.002	.002	.002	.002	.002	.002	.003					.014	.010	.003	20
8	.014	.017	.011	.010	.015	.013	.014	.017	.008	.009	.004	.006	.005	.007	.005	.005	.003	.003	.004	.003	.006	.003	.003	.004	.008	24
9	.003	.003	.003	.004			.009	.007	.005	.004	.003	.002	.001	.001	.004	.004	.008	.010	.007	.008	.010	.010	.008	.008	.006	22
10	.011	.011	.010	.008	.008	.008	.008	.007	.003	.002	.004	.002	.002	.003	.001	.001	.000	.000	.000	.000	.005	.003	.002	.002	.004	24
11	.001	.002	.001	.000	.001	.001	.001	.001	.001	.004	.002	.002	.003	.002	.003	.003	.002	.003	.003	.002	.002	.001	.001	.000	.002	24
12	.000	.000	.000	.000	.000	.001	.002	.003	.002	.002	.001	.001	.002	.001	.002	.001	.001	.000	.002	.001	.000	.000	.000	.000	.001	24
13	.000	.000	.000	.000	.000	.000	.002	.004	.000	.001	.000	.000	.001	.001	.004	.004	.003	.002	.002	.003	.003	.004	.003	.003	.002	24
14																										0
15																										0
16						.003	.007	.001	.000	.001	.001	.002	.002	.003	.004	.003	.004	.003	.005	.004	.004	.004	.002	.001	.003	19
17	.004	.001	.002	.002	.003	.002	.004	.003	.004	.004	.003	.003	.003	.003	.004	.003	.002	.002	.005	.006	.001	.002	.002	.003	.003	24
18	.002	.001	.000	.001	.001	.002	.003	.003		.003	.004	.005	.003	.003	.003	.003	.003	.004	.005	.009	.008	.007	.012	.010	.004	23
19	.011	.007	.008	.006	.008	.009	.014	.009	.005	.010	.003	.003	.004	.003	.002	.001	.000	.002	.004	.004	.010	.013	.007	.006	.006	24
20	.005	.003	.004	.004	.006	.005	.005	.004	.000	.000	.000	.001	.003	.002	.001	.001	.001	.001	.001	.002	.003	.000	.000	.000	.002	24
21	.000	.000	.000	.000	.000	.001	.003	.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
22	.000	.000	.000	.000	.000	.000	.002	.002	.002	.001	.002	.001	.002	.001	.001	.001	.001	.002	.002	.000	.002	.000	.000	.000	.001	24
23	.000	.000	.000	.000	.000	.001	.003	.002	.001	.001	.001	.000	.000	.000	.000	.001	.001	.001	.002	.001	.000	.000	.000	.000	.001	24
24	.000	.000	.000	.000	.004	.001	.000	.000	.002	.001	.000	.001	.001	.001	.001	.001	.001	.001	.002	.003	.003	.003	.005	.001	.004	24
25	.003	.003	.003	.003	.002	.002	.002	.003	.003	.003	.002	.001	.002	.002	.000	.000	.001	.004	.005	.009	.009	.008	.013	.011	.004	24
26	.005	.002	.001	.002	.003	.003	.003	.003	.003	.003	.003	.002	.000	.000	.000	.000	.000	.000	.001	.002	.002	.002	.002	.001	.000	24
27	.000	.001	.000	.000	.000	.001	.002	.002	.002	.001	.001	.000	.000	.000	.000	.000	.000	.000	.001	.001	.002	.003	.002	.002	.002	24
28	.000	.000	.000	.001	.000	.000	.000	.001	.000	.001	.001	.000	.000	.000	.000	.001	.002	.002	.001	.003	.003	.002	.000	.001	.000	24
29	.000	.000	.001	.000	.000	.001	.000	.001	.001	.000	.000	.000	.000	.001	.000	.000	.000	.001	.000	.005	.004	.003	.004	.003	.001	24
30	.000	.000	.000	.000	.000	.001	.000	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.000	.000	.000	.000	.000	.000	24
AVG	.003	.003	.003	.002	.003	.004	.004	.004	.003	.003	.002	.002	.002	.002	.002	.002	.002	.003	.003	.004	.004	.003	.004	.003	.003	
NO.	26	26	26	26	25	26	28	28	27	28	28	28	28	27	27	28	28	27	27	27	27	28	28			
MAX	.014	.017	.011	.010	.015	.013	.014	.017	.009	.010	.005	.006	.005	.007	.008	.005	.008	.010	.007	.009	.010	.010	.014	.011	.017	657

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
110 S. ELWOOD ST; TULSA, OK.
(373000996A05)

NITROGEN DIOXIDE
#760214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1																									0
2																									0
3																									0
4																									0
5																									0
6																									0
7																									0
8																									0
9																									0
10																			.021	.016	.019	.016	.013	.023	.018 6
11	.027	.024	.021	.030	.040	.035	.035	.040		.049	.040	.016	.021	.024	.040	.051	.051	.057	.067	.073	.073	.051	.051	.035	.041 23
12	.035	.051	.035	.040	.040	.040	.046	.040		.024	.035	.046	.030	.035	.046	.051	.040	.040							.040 17
13		.040	.030	.027	.020	.024	.035	.040		.035	.051	.051	.021	.019	.027				.046	.046	.035	.035	.040	.027	.018 .033 20
14	.024	.035	.030	.019	.024	.030	.040	.046		.040	.040	.040	.030	.019	.019	.022	.019	.019	.013	.030	.035	.046	.046	.022	.030 23
15	.027	.022	.019	.014	.013	.013	.035	.067		.038	.030	.035	.030	.019	.027	.035	.035	.019	.030	.024	.024	.016	.032	.030	.028 23
16	.019	.013	.019	.024		.030	.024	.035	.040	.040	.051	.038	.024	.024	.019	.019	.019	.011	.011	.016	.030	.040	.040	.035	.027 23
17	.030	.019	.021	.016	.011	.010	.021	.027	.046	.040	.040	.035	.046	.046	.030	.046	.035	.057	.057	.062	.051	.032	.032	.030	.035 24
18	.024	.019	.027	.027		.035	.035	.038	.036	.051	.040	.043	.030	.035	.051	.051	.057	.081	.030	.051	.040	.038	.030	.021	.037 23
19	.017	.031	.030	.031	.028	.030	.045	.048	.053	.045	.028	.017	.034	.020	.020	.025	.023	.014	.014	.012	.012	.013	.012	.014	.026 24
20	.008	.008	.009	.010		.012	.024	.038	.035	.043	.057	.035	.032	.030	.032	.021	.024	.018	.018	.014	.019	.016	.018	.013	.023 23
21	.011	.023	.008	.026		.031	.026	.026	.026	.029	.026	.026	.023	.023	.023	.024	.026	.046	.061	.049	.041	.043	.036	.027	.030 23
22	.021	.027	.014	.014	.014	.016	.024	.030	.021	.016	.019	.020	.030	.024	.016	.019	.040	.040	.040	.024	.023	.023	.025	.030	.024 24
23	.030	.021	.019	.021	.025	.027	.035	.027	.024	.035	.035	.021	.019	.018	.019	.014	.008	.009	.024	.019	.013	.014	.018	.019	.021 24
24	.035	.040	.046	.040		.040	.040	.046	.046	.051	.051	.040	.019	.030	.013	.024	.061	.073	.073	.046	.024	.030	.030	.035	.041 23
25	.051	.046	.046	.040		.046	.040	.057	.030	.024	.024	.019	.018	.019	.024	.021	.021	.030	.030	.019	.018	.013	.016	.013	.029 23
26	.009	.014	.013	.012		.027	.040	.030	.024	.021	.024	.027	.027	.023	.024	.021	.024	.014	.016	.016	.016	.013	.016	.016	.019 .020 23
27	.011	.011	.011	.012	.014	.019	.021	.020	.020	.019	.020	.021	.019	.021	.019	.027	.035	.021	.024	.024	.029	.023	.021	.013	.020 24
28	.011	.011					.022	.019	.025	.029	.029	.019	.038	.019	.022	.025	.038								.023 13
29						.032	.044	.042	.039		.014	.017	.019	.024	.019	.022	.017	.017	.022	.022	.021	.032	.052	.044	.027 18
30	.036	.033	.051	.046	.046	.041	.043	.051	.051	.051	.058	.066	.043	.038	.076	.061	.038	.031	.013	.012	.013	.010		.026	.041 23
31	.037	.042	.027	.014		.019	.019	.022	.029	.027	.019	.016	.012	.013	.019	.016	.019	.018	.017	.013	.018	.036	.039	.034	.022 23
AVG	.024	.026	.025	.024	.025	.028	.033	.038	.034	.035	.035	.031	.026	.025	.028	.030	.031	.032	.031	.029	.027	.027	.029	.025	.029
NO.	19	20	19	19	11	20	21	21	16	20	21	21	21	21	21	20	20	20	20	20	20	20	19	20	470
MAX	.051	.051	.051	.046	.046	.046	.046	.067	.053	.051	.058	.066	.046	.046	.076	.061	.067	.073	.073	.073	.073	.051	.052	.044	.076

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
110 S. ELWOOD ST, TULSA, OK.
(373000990A05)

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	AM												PM											DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.034	.019	.011	.012		.027	.024	.027	.022	.024	.027	.019	.017	.017	.016	.019	.022	.017	.017	.021	.032	.042	.039	.047	.024	23
2	.037	.037	.042	.032	.012	.037	.044	.049	.049	.052	.037	.014	.017	.017	.017	.019	.019	.022	.017	.021	.022	.027	.064	.032	.031	24
3	.032	.037	.042	.042	.037	.027	.037	.039	.028	.027	.022	.019	.037	.044	.052	.059	.067	.047	.029	.017	.017	.037	.034	.039	.036	24
4	.052	.062	.052	.037	.037	.032	.029	.047	.047	.042	.027	.017	.017	.014	.032	.052	.057	.062	.047	.032	.027	.037	.047	.042	.041	24
5	.044	.047	.044	.039	.032	.047	.028	.029	.037	.062	.072	.062	.059	.057	.057	.067	.069			.032	.054	.044	.039	.052	.050	22
6	.060	.050	.060	.035	.040	.040	.050	.040	.030	.050	.045	.045	.040	.050	.060	.060	.045	.040	.050	.060	.030	.040	.030	.030	.045	24
7	.030	.035	.040	.045	.040	.040	.040	.045	.045	.060	.050	.065	.025	.035	.050	.050	.050	.040	.045	.025	.025	.030	.041	24
8	.022	.032	.050	.030	.038	.038	.040	.040	.050	.050	.035	.040	.040	.065	.055	.070	.060	.075	.070	.040	.040	.050	.030	.025	.046	24
9	.030	.045	.025	.035		.035	.050	.048	.048	.050	.050	.055	.060	.050	.055	.065	.060	.060	.065	.050	.030	.040	.050	.030	.047	23
10	.034	.034	.042	.024	.042	.041						.017	.025	.018	.018	.030	.024	.019	.049	.049	.055	.037	.027	.029	.032	19
11	.015	.010	.009	.015	.015	.018	.026	.024	.014	.019	.015	.016	.013	.013	.016	.019	.015	.013	.013	.013	.010	.010	.010	.009	.014	24
12	.010	.006	.006	.006	.007	.012	.017	.016	.016	.013	.013	.013	.010	.019	.025	.020	.026	.015	.012	.025	.016	.023	.031	.026	.016	24
13	.025	.031	.024	.019	.017	.025	.024	.024	.025	.030	.024	.022	.020	.025	.023	.019	.019	.014	.012	.013	.020	.017	.013	.015	.021	24
14	.016	.010	.012	.014	.010	.010	.010	.010	.020	.022	.017	.015	.014	.012	.011	.006	.009	.010	.025	.014	.010	.015	.010	.014	.013	24
15	.030	.027	.035	.025	.027	.027	.031	.038	.042	.027	.028	.028	.027	.015	.012	.013	.015	.010	.011	.013	.045	.045	.040	.037	.027	24
16	.037	.030	.023	.023	.020	.026	.026	.029	.029	.025	.034	.037	.040	.038	.030	.040	.060	.027	.025	.042	.040	.028	.023	.025	.031	24
17	.020	.006	.009	.009	.006	.011	.020	.017	.017	.015	.010	.012	.017	.016	.015	.020	.015	.015	.015	.023	.019	.024	.022	.014	.015	24
18	.010	.010	.009	.010	.010	.019	.021	.026	.032	.019	.014	.015	.012	.013	.019	.024	.028	.025	.023	.020	.028	.030	.029	.020	.019	24
19	.018	.014	.014	.011	.017	.022	.028	.030	.032	.033	.035	.036	.027	.033	.032	.037	.028	.043	.038	.032	.019	.020	.017	.013	.026	24
20	.012	.011	.010	.011	.010	.026	.026	.031	.023	.030															.019	10
21							.026	.014	.015	.010	.013	.013	.008	.005	.005	.004	.005	.004	.008	.025	.032	.044	.054	.046	.018	18
22	.046	.042	.034	.027	.025	.037	.044	.051	.068	.054	.030	.028	.028	.025	.020	.015	.015	.027	.020	.020	.030	.049	.042	.023	.033	24
23	.016	.011	.007	.012	.013	.015	.025	.031	.034	.046	.044	.018	.013	.019	.032	.034	.028	.028	.026	.020	.022	.025	.031	.015	.023	24
24	.025	.024	.006	.010	.013	.020	.022	.024	.022	.022	.015	.017	.015	.016	.018	.018	.020	.022	.022	.023	.026	.024	.017	.016	.019	24
25	.011	.009	.014	.007	.007	.009	.018	.018	.012	.018	.025	.020	.026	.016	.013	.015	.014	.010	.009	.011	.010	.015	.043	.037	.016	24
26	.037	.039	.032	.025	.020	.025	.030	.039	.032	.045	.049	.044	.061	.063	.048	.048	.058	.049	.050	.030	.037	.040	.042	.034	.041	24
27	.037	.025	.036	.032	.025	.034	.026	.046	.039	.028	.040	.044	.044	.030	.043	.034	.037	.040	.039	.026	.037	.038	.031	.037	.035	24
28	.025	.034	.024	.025	.019	.025	.025	.025		.013	.011	.016	.024	.024	.026	.019	.023	.023	.025	.021	.011	.010	.011	.006	.020	23
29	.006	.009	.009	.008	.008	.013	.020	.021		.015	.015	.022	.021	.019	.031	.041	.040	.031	.036	.041	.042	.046	.038	.019	.029	23
30	.016	.012	.010	.007	.009	.011	.019	.021	.031	.026	.039	.046	.021	.026	.019	.024	.019	.011	.013	.016	.014	.014	.014	.009	.019	24
31	.019	.024	.024	.015	.020	.031	.040	.045	.044	.044	.045	.044	.048	.051	.040	.024	.024	.015	.014	.016	.025	.025	.023	.016	.030	24
AVG	.027	.026	.025	.021	.020	.026	.029	.031	.032	.032	.030	.028	.028	.028	.030	.032	.032	.028	.029	.028	.028	.032	.031	.026	.028	
NO.	30	30	30	30	28	30	30	30	28	30	29	30	30	30	30	30	30	29	29	30	30	30	30	30		713
MAX	.060	.062	.060	.045	.042	.047	.050	.051	.068	.062	.072	.065	.061	.065	.060	.070	.069	.075	.070	.060	.055	.064	.069	.052	.075	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
110 S. ELWOOD ST; TULSA, OK.
(373000096805)

NITROGEN DIOXIDE
42602I4
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.011	.017	.014	.018	.024	.019	.021	.026	.031	.027	.030	.040	.041	.046	.025	.020	.015	.017	.016	.025	.023	.019	.021	.036	.024	24
2	.026	.029	.031	.014	.024	.026	.027	.034	.044	.041	.039	.059	.030	.039	.020	.018	.017	.019	.035	.049	.048	.047	.056	.055	.034	24
3	.046	.044	.039	.034	.031	.021	.021	.027	.036	.040	.034	.041	.028	.026	.036	.014	.011	.011	.014	.022	.021	.017	.022	.027	.028	24
4	.026	.016	.028	.031	.014	.011	.013	.019	.041	.036	.041	.038	.027	.015	.013	.013	.014	.019	.020	.019	.021	.018	.018	.015	.022	24
5	.011	.007	.006	.007	.007	.011	.012	.011	.012	.011	.011	.011	.010	.012	.012	.011	.013	.021	.033	.026	.028	.029	.018	.013	.019	24
6	.009	.010	.010	.011	.014	.021	.025	.021	.021	.019	.014	.014	.018	.014	.016	.021	.019	.016	.017	.034	.036	.024	.021	.019	.018	24
7	.025	.014	.011	.009	.014	.021	.024	.029	.026	.021	.016		.022	.020	.020	.026	.026	.024	.027	.046	.059	.062	.040	.041	.027	23
8	.050	.040	.040	.034	.036	.041	.049	.039	.041	.029	.056	.061	.051	.040	.040	.026	.021	.018	.017	.016	.016	.031	.036	.044	.036	24
9																										0
10							.018	.020	.017	.022	.026	.022	.017	.016	.019	.015	.015	.018	.020	.022	.029	.024	.028	.027	.021	18
11	.029				.007	.007	.007	.011	.012	.020	.012	.017	.016	.014	.011	.010	.010	.010	.012	.015	.012	.013	.019	.030	.014	21
12	.032	.040	.025	.025	.026	.023	.030	.042	.042	.045	.050	.050		.047	.046	.040	.045	.040	.032	.047	.040	.025	.025	.035	.037	23
13	.025	.017	.012	.013	.017	.020	.025	.025	.030	.030		.017	.021	.017	.018	.015	.013	.011	.017	.012	.011	.010	.008	.008	.017	23
14	.005	.006	.005	.006	.007	.010	.016	.017	.017	.016	.017	.015	.016	.015	.017	.018	.021	.015	.015	.011	.011	.011	.011	.009	.013	24
15	.005	.005	.005	.006	.011	.019	.026	.025	.025	.020	.017	.017	.010	.015	.018	.020	.022	.017	.025	.024	.027	.022	.012	.009	.017	24
16	.008	.019	.032	.015	.020	.032	.041	.045	.041	.032	.030	.032	.050	.045	.050	.050	.044	.058	.045	.052	.045	.037	.020	.015	.036	24
17	.019	.022	.028	.014	.017	.035	.040	.025	.035	.035	.040	.054	.046	.038	.045	.037	.050	.050	.053	.033	.025	.042	.032	.030	.035	24
18	.025	.037	.030	.040	.040	.030	.025	.030	.030	.025	.045	.050	.040	.037	.042	.050	.033	.019	.025	.017	.026	.025	.020	.015	.031	24
19	.014	.014	.015	.016	.014	.020	.024	.016	.012	.011	.015	.017	.015	.011	.012	.017	.016	.017	.024	.037	.041	.034	.036	.030	.020	24
20	.027	.025	.026	.019	.012	.025	.030	.046	.040	.027	.031	.041	.029	.019	.016	.020	.018	.016	.021	.016	.014	.011	.009	.010	.023	24
21	.007	.020	.025	.024	.037	.025	.035	.035	.025	.022	.017	.010	.011	.013	.015	.022	.039	.024	.017	.032	.040	.047	.062	.046	.027	24
22	.044	.037	.016	.013	.012	.024	.038	.034	.020	.028	.040	.035	.035	.030	.020	.040	.040	.011	.015	.011	.013	.010	.023	.020	.026	24
23	.025	.017	.030	.025	.032	.045	.045	.055	.045	.043	.043	.053	.030	.045	.040	.052	.040	.058	.042	.040	.030	.027	.030	.025	.038	24
24	.035	.020	.009	.006	.010	.011	.016	.024	.027	.030	.024	.018	.015	.015	.019	.016	.016	.021	.036	.049	.046	.037	.035	.032	.023	24
25	.029	.022	.017	.014	.016	.020	.016	.015	.024	.016	.009	.011	.011	.011	.008	.008	.010	.019	.030	.036	.026	.020	.016	.015	.017	24
26	.012	.006	.010	.007	.015	.026	.032	.037	.034	.026	.035	.037	.025	.027	.022	.037	.043	.044	.025	.033	.030	.027	.024	.025	.027	24
27	.031	.028	.025	.016	.011	.012	.025	.033	.033	.024	.021	.017	.017	.014	.015	.021	.024	.021	.026	.018	.020	.016	.014	.013	.021	24
28	.014	.014	.015	.008	.009	.016	.024	.023	.016	.011	.016	.019	.023	.028	.024	.030	.030	.016	.018	.010	.011	.011	.010	.013	.017	24
29	.009	.007	.008	.007	.007	.010	.026	.027	.022	.017	.018	.019	.019	.017											.015	14
30																										0
AVG	.023	.020	.020	.017	.018	.022	.026	.028	.029	.026	.028	.030	.025	.024	.023	.025	.025	.023	.025	.028	.028	.026	.024	.024	.024	
NO.	27	26	26	26	27	27	28	28	28	28	27	27	27	28	27	27	27	27	27	27	27	27	27	27		650
MAX	.044	.044	.040	.040	.040	.045	.049	.055	.045	.045	.056	.061	.051	.047	.050	.052	.050	.058	.053	.052	.059	.062	.062	.055	.044	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
4616 E. 15TH ST.
(373000997A05)

NITROGEN DIOXIDE
4260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

JUL 1977

DAY	12	1	2	3	4	AM 5	6	7	8	9	10	11	12	1	2	3	4	PM 5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5																										0
6																										0
7																										0
8	.006	.004	.004	.004	.003	.003	.009											.005	.006	.009	.014	.017	.016	.011	.011	7
9	.010	.010	.007	.006	.003	.004	.013	.014		.015	.010	.008	.016	.018	.035	.043	.017	.015	.025	.035	.027	.028	.027	.027	.018	13
10	.020	.017	.012	.004	.004	.007	.007	.004	.004	.004	.004	.004	.007	.004	.004	.007	.007	.004	.004	.004	.009	.012	.007	.004	.004	24
11	.001	.009	.007	.004	.009	.009	.014	.009	.004		.004	.009	.004	.007	.004	.004	.007	.009							.007	17
12	.001	.007	.001	.004	.001	.004	.007	.007	.004		.001	.001	.001	.000	.001	.001	.007	.004	.004	.009	.009	.007	.025	.025	.006	23
13	.009	.007	.001	.001	.004	.012	.017	.017	.007	.004	.001	.004	.004	.004	.004	.009	.009	.004	.009	.014	.020		.009	.009	.008	23
14	.009	.009	.009	.012	.017	.020	.022	.020	.014	.007	.004	.004	.004	.004	.007	.007	.007	.009	.009	.012		.012	.012	.009	.010	23
15	.004	.012	.017	.025	.025	.017	.009				.004	.007	.004	.004	.007	.007	.009	.012	.012	.022	.025	.012	.009	.014	.012	21
16	.014	.009	.007	.004	.004	.009	.009	.009	.009		.007	.009	.007	.004	.007	.009	.012	.014	.020	.014	.020	.022	.020	.009	.011	23
17	.007	.004	.007	.004	.001	.004	.004	.004	.007	.004	.005	.005	.004	.004	.004	.007	.007	.007	.007	.009	.022	.022	.012	.012	.007	24
18	.009	.012	.009	.009	.017	.012	.028	.028	.019		.004	.002	.009	.007	.004	.007	.007	.004	.007	.012	.017	.020	.020	.009	.012	23
19	.007	.007	.004	.004	.009							.008	.005		.008	.010	.010	.008	.013	.013	.013	.010	.008	.005	.008	17
20	.005	.005	.005	.005	.005	.010	.020	.000	.018		.010	.008	.010	.008	.010	.013	.021	.018	.018	.018	.018	.018	.013	.010	.012	23
21	.005	.005	.003	.005	.005	.008	.023	.020	.018	.013	.018	.015	.018	.015	.010	.010	.025	.055	.055	.048	.070	.065	.050	.035	.025	24
22	.030	.020	.013	.008	.010	.015	.035	.028	.015	.000	.013	.010	.013	.010	.015	.035	.050	.050	.030	.030	.045	.023	.033	.033	.023	24
23	.028	.020	.015	.020	.025	.030	.025	.028	.015	.000	.015	.020	.015	.015	.015	.010	.008	.010	.020	.024	.025	.038	.020	.015	.019	24
24	.010	.010	.008	.008	.005	.008	.010	.010	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.010	.015	.010	.010	.010	.008	.008	24
25	.010	.015	.020	.008	.005	.010	.020	.023	.025	.010	.013	.010	.010	.010	.010	.008	.008	.008	.018	.020	.015	.015	.010	.010	.013	24
26	.013	.010	.008	.010	.010	.015	.028	.023	.015		.023	.028	.035	.018	.015	.018	.018	.020	.023	.020	.020	.013	.015	.010	.018	23
27	.008	.008	.008	.008	.010	.018	.023	.025	.020	.018		.020	.023	.023	.028	.028	.033	.035	.025	.020	.023	.015	.013	.010	.019	23
28	.008	.008	.008	.005	.008	.015	.015	.025	.023	.020	.018	.015	.015		.014	.023	.010	.018	.020	.040	.050	.040	.015	.010	.018	23
29	.006	.006	.006	.007	.015	.028	.033	.025	.024		.033	.013	.019	.019	.016	.018	.018	.018	.022	.038	.023	.010	.019	.019	.018	23
30	.013	.011	.010	.010	.014	.014	.016	.019	.019		.010	.008	.010	.010	.015	.024	.025	.023	.028	.033	.040	.022	.019	.015	.018	23
31	.010	.005	.006	.010	.013	.017	.025	.025	.016	.024	.021	.020	.017	.019	.019	.019	.010	.020	.022	.017	.015	.035	.043	.040	.019	24
AVG	.010	.010	.008	.008	.009	.013	.018	.017	.014	.010	.011	.010	.011	.009	.011	.014	.014	.014	.018	.020	.024	.021	.018	.015	.014	
NO.	24	24	24	24	24	23	23	21	20	13	21	23	23	21	23	23	23	24	24	24	23	23	24	24		543
MAX	.030	.020	.020	.025	.025	.030	.035	.028	.025	.024	.033	.028	.035	.023	.035	.043	.050	.055	.055	.048	.070	.065	.050	.040	.070	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
9616 E. 15TH ST.
(373000997A051)

NITROGEN DIOXIDE
42602I4
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	AM										PM												DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.028	.020	.006	.005	.007	.020	.033	.033	.031		.020	.018	.016	.010	.014	.014	.010	.015	.019	.050	.055	.058	.055	.040	.025	23
2	.020	.018	.021	.033	.031	.021	.045	.050			.020	.023	.017	.018	.018	.015	.019	.018	.020	.035	.040	.030	.028	.028	.026	22
3	.015	.011	.008	.005	.008	.014	.028	.033	.040		.018	.018	.015	.014	.010	.009	.013	.010	.018	.022	.020	.019	.010	.005	.016	23
4	.003	.009	.010	.008	.004	.013	.039	.050	.043		.013	.015	.018	.015	.015	.015	.015	.016	.018	.017	.016	.015	.007	.005	.014	23
5	.005	.005	.005	.005	.005	.010	.035	.030	.015		.019	.015	.013	.010	.014	.015	.025	.020	.025	.023	.023	.018	.015	.010	.016	23
6	.004	.007	.006	.010	.009	.008	.010	.011	.010	.010	.014	.014	.010	.008	.008	.010	.014				.025	.019	.008	.005	.011	21
7	.002	.001	.000	.004	.008	.008	.004	.003	.003	.003	.002	.003	.005	.006	.005	.003	.004	.004	.006	.008	.007	.007	.005	.002	.004	24
8	.000	.000	.000	.001	.002	.008	.008	.015	.011	.007	.007	.006	.008	.003	.009	.003	.009	.008	.009	.012	.012	.009	.006	.002	.006	24
9	.002	.001	.000	.000	.001	.002	.017	.012	.007		.004	.003	.003	.003	.003	.007	.007	.005	.007	.017	.020	.008	.005	.008	.006	23
10	.004	.002	.001	.001	.002	.007	.018	.015	.014		.018	.015	.009	.011	.011	.021	.018	.015	.011	.008	.011	.018	.018	.015	.011	23
11	.008	.002	.002	.002	.004	.012	.024	.019	.010		.011	.010	.012	.008	.008	.009	.011	.009	.010	.011	.010				.010	20
12	.004	.004	.003	.003	.005	.008								.006	.009	.018	.021	.019	.020	.037	.028	.019	.019	.019	.014	17
13	.013	.014	.012	.012	.009	.008	.011	.010	.010		.010	.014	.012	.025	.025	.012	.018	.019	.018	.018	.025	.019	.016	.018	.015	23
14	.014	.010	.010	.009	.009	.007	.008	.006	.004	.005	.005	.008	.008	.008	.009	.011	.015	.014	.016	.025	.010	.010	.008	.011	.010	24
15	.008	.004	.003	.004	.012	.019	.024	.025	.025	.013		.005	.008	.006	.006	.008	.009	.012	.018	.024	.019	.019	.017	.019	.013	23
16	.011	.009	.003	.000	.002	.009	.011	.010	.009		.009	.008	.005	.005	.006	.009	.035	.032	.025	.051	.040	.029	.026	.026	.016	23
17	.015	.009	.009	.007	.003	.009	.020	.022	.019		.011	.011	.012	.012	.013	.014	.014	.011	.022	.024	.032	.031	.021	.018	.016	23
18	.009	.007	.009	.006	.012	.020	.032	.033	.024		.009	.009	.008	.011	.009	.010	.027	.030	.036	.035	.030	.015	.025	.019	.018	23
19	.009	.006	.006	.005	.009	.014	.025	.025	.019		.025	.024	.024	.030	.031	.025	.025	.012	.019	.018	.021	.026	.020	.017	.019	23
20	.017	.019	.014	.011	.014	.016	.021	.025	.019		.012	.010	.009	.012	.015	.015	.017	.020	.030	.031	.041	.035	.029	.019	.019	23
21	.009	.010	.010	.007	.009	.010	.016	.019	.016	.009	.012	.009	.010	.009	.008	.008	.008	.008	.014	.036	.045	.049	.038	.035	.017	24
22	.036	.039	.025	.030	.033	.040	.040	.048	.066	.030	.009	.006	.008	.006	.008	.010	.011	.012	.015	.020	.017	.018	.019	.019	.023	24
23	.009	.009	.001	.003	.005	.012	.025	.025	.010	.009	.006	.008	.010	.010	.009	.008	.010	.016	.029	.017	.022	.029	.025	.017	.013	24
24	.013	.016	.008	.005	.006	.014	.019	.024	.025	.029	.017	.015	.015	.015	.013	.017	.020	.014	.019	.038	.025	.017	.012	.013	.017	24
25	.010	.005	.004	.003	.004	.006	.014	.010	.007		.006	.008	.008	.007	.007	.008	.008	.010	.012	.014	.016	.010	.006	.004	.008	23
26	.003	.002	.000	.000	.001	.005	.014	.016	.012	.013	.007	.006	.008	.008	.006	.009	.012	.013	.012	.011	.011	.011	.005	.004	.008	24
27	.003	.004	.003	.002	.001	.003	.005	.005	.005		.005	.006	.005	.006	.007	.005		.010	.011	.012	.013	.013	.008	.004	.006	22
28	.003	.003	.003	.003	.002	.002	.002	.004	.005	.005	.007	.014	.019	.025	.025	.023	.015	.020	.023	.019	.012	.010	.004	.003	.010	24
29	.002	.003	.003	.004	.005	.009	.016	.016	.014	.015	.015	.017	.019	.017	.015				.012	.025	.049	.039	.038	.020	.017	21
30	.014	.009	.008	.006	.005	.009	.015	.014	.010	.009	.012	.010	.009	.005	.004	.007	.009	.009	.010	.014	.012	.011	.009	.004	.009	24
31	.004	.002	.000	.001	.004	.005	.011	.009	.009	.005	.009	.004	.005	.005	.005	.006	.008	.008	.013	.019	.020	.019	.023	.020	.009	24
AVG	.010	.008	.006	.006	.007	.011	.019	.021	.017	.011	.011	.011	.011	.011	.011	.011	.015	.014	.017	.023	.023	.021	.017	.014	.014	
NO.	31	31	31	31	31	31	30	30	29	14	29	30	30	31	31	30	29	29	30	30	31	30	30	30		709
MAX	.036	.039	.025	.033	.033	.040	.045	.050	.066	.030	.025	.024	.024	.030	.031	.025	.035	.032	.036	.051	.055	.058	.055	.040	.046	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA
9616 E. 15TH ST.
(373000997A051)

NITROGEN DIOXIDE
#760214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	AM												PM											DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.007	.006	.008	.011	.016	.018	.023	.029	.012	.013	.007	.006	.008	.007	.013	.011	.012	.018	.019	.031	.025	.017	.015	.011	.014	24
2	.009	.010	.012	.011	.009	.018	.028	.032	.023	.013	.011	.009	.008	.007	.007	.008	.013	.015	.038	.047	.051	.042	.044	.043	.021	24
3	.024	.020	.024	.026	.029	.027	.024	.019	.021	.017	.012	.007	.005	.009	.011	.012	.018	.023	.031	.043	.053	.049	.037	.048	.024	24
4	.032	.023	.021	.022	.012	.007	.008	.009	.009	.012	.012	.004	.009	.009	.007	.008	.010	.018	.017	.021	.019	.023	.022	.013	.014	24
5	.009	.009	.009	.009	.003	.012	.010	.009	.012	.012	.019	.012	.015	.018	.017	.015	.017	.019	.027	.020	.027	.029	.010	.008	.013	24
6	.005	.006	.005	.009	.006	.009	.019	.023	.019	.029	.013	.012	.014	.015	.015	.018	.020	.017	.025	.041	.037	.023	.019	.015	.017	24
7	.016	.012	.010	.010	.013	.019	.021	.025	.026	.027	.018	.014	.013	.015	.012	.018	.022	.024	.044	.059	.060	.055	.043	.044	.026	24
8	.043	.036	.032	.029	.031	.032	.034	.044	.027	.010	.018	.016	.013	.009	.010	.011	.011	.012	.020	.023	.018	.012	.008	.008	.021	24
9	.009	.009	.009	.008	.011	.012	.019	.025	.017	.029	.026	.018	.019	.011	.010	.010	.010	.010	.014	.014	.014	.014	.015	.015	.014	24
10	.011	.009	.009	.009	.008	.010	.018	.021	.022	.027	.028	.029	.017	.016	.017	.019	.020				.020	.024	.023	.022	.018	21
11	.023	.018	.009	.006	.009	.005	.009	.006	.014	.013	.016	.018	.019	.018	.013	.012	.012	.010	.012	.014	.010	.009	.009	.009	.011	24
12	.009	.009	.003	.002	.002	.009	.025	.023	.013	.015	.012	.010	.006	.006	.007	.008	.017	.016	.010	.005	.005	.002	.003	.009	.009	24
13	.000	.005	.003	.009	.005	.012	.015	.020	.021	.030	.034	.026	.026	.019	.015	.020	.018	.017	.008	.005	.009	.004	.009	.002	.013	24
14	.003	.003	.001	.009	.002	.007	.013	.014	.014	.012	.010	.010	.010	.010	.010	.014	.012	.010	.009	.009	.007	.008	.009	.009	.008	24
15	.009	.002	.002	.001	.002	.006	.022	.027	.028	.019	.017	.015	.013	.012	.010	.007	.012	.015	.035	.034	.033	.023	.019	.009	.015	24
16	.005	.009	.003	.001	.010	.029	.034	.042	.043	.041	.030	.015	.009	.009	.010	.012	.014	.014	.029	.026	.020	.019	.010	.008	.018	24
17	.005	.009	.009	.003	.003	.009	.005	.009	.009	.015	.011	.008	.008	.011	.009	.012	.015	.019	.029	.024	.023	.018	.019	.010	.011	24
18	.002	.002	.010	.009	.011	.012	.013	.010	.006	.009	.009	.005	.009	.008	.009	.009	.007	.010	.016	.013	.013	.013	.009	.007	.008	24
19	.009	.009	.009	.009	.009							.009	.009	.010	.010	.014	.011	.024	.043	.049	.051	.040	.039	.037	.020	18
20	.029	.019	.019	.016	.019	.023	.030	.040	.046	.023	.012	.010	.014	.015	.019	.015	.018	.019	.039	.022	.016	.010	.009	.009	.020	24
21	.009	.003	.002	.003	.003	.005	.023	.022	.013	.013		.010	.010	.009	.009	.012	.013	.012	.018	.012	.010	.008	.007	.008	.010	23
22					.007	.011	.026	.038	.022	.014	.011		.008	.009	.009	.010	.010	.014	.019	.020	.025		.009	.006	.015	18
23	.005	.009	.009	.009	.009	.009	.012	.018	.020	.013	.010	.009	.008	.015	.019	.010	.019	.019	.017	.008	.010	.009	.009	.006	.010	24
24	.002	.002	.005	.003	.003	.009		.020	.021	.015	.019	.015	.012	.011	.010	.015	.017	.029	.046	.049	.040	.043	.035	.006	.018	23
25	.059	.035	.009	.000	.000	.000	.002	.003	.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.000	.000	.005	24
26	.009	.005	.008	.010	.011	.020	.025	.026	.028	.009	.006	.006	.005	.006	.006	.009	.009	.017	.029	.025	.019	.008	.009	.005	.012	24
27	.009	.001	.002	.009	.008	.009	.012	.016	.010	.019	.018	.009	.011	.008	.010	.016	.017	.020	.019	.029	.031	.019	.017	.010	.013	24
28	.005	.006	.009	.009	.002	.009	.026	.022	.016	.013	.019	.016	.017	.019	.012	.015	.017	.029	.019	.016	.011	.011	.007	.008	.013	24
29	.005	.005	.002	.001	.003	.009	.021	.029	.011	.010	.009	.010	.018	.010	.019	.017	.019	.027	.036	.033	.031	.021	.016	.017	.015	24
30	.011	.009	.002	.002	.003	.005	.015	.015																	.007	8
AVG	.012	.009	.008	.007	.008	.012	.019	.022	.019	.018	.019	.012	.011	.011	.011	.012	.014	.014	.023	.029	.023	.020	.016	.013	.015	
NO.	29	29	29	29	30	29	28	29	28	28	27	28	29	29	29	29	29	28	28	28	29	28	29	29		687
MAX	.059	.036	.032	.029	.031	.032	.034	.044	.046	.041	.034	.029	.026	.019	.017	.020	.022	.029	.046	.059	.060	.055	.043	.048	.040	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY; SPERRY;
(373020996A05)

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5	.014	.012	.005	.007	.009	.019	.022	.017	.009	.007	.007	.007	.007	.007	.005	.005	.002	.004	.008	.012	.022	.034	.031	.022	.014	11
6	.014	.014	.014	.014	.017	.012	.014	.012	.009	.007	.007	.005	.005	.005	.007	.007	.007	.007	.009	.012	.022	.014	.008	.007	.010	24
7	.005	.006	.007	.005	.007	.008	.012	.008	.009	.009	.005	.005	.006	.006	.005	.005	.008	.005	.012	.014	.012	.022	.014	.012	.009	24
8	.007	.007	.007	.004	.002	.007	.007	.005	.005	.002	.002	.002	.002	.002	.002	.002	.005	.004	.002	.002	.006	.017	.017	.009	.005	24
9	.009	.005	.002	.002	.003	.005	.002	.002	.004	.005	.005	.005	.005	.007	.009	.007	.005	.005	.005	.007	.012	.009	.009	.009	.006	24
10	.007	.007	.007	.008	.008	.009	.009	.010	.007	.008	.005	.007	.008	.005	.007	.008	.007	.007	.009	.011	.016	.017	.011	.007	.008	24
11	.009	.010	.007	.006	.007	.007	.009	.006	.006			.005	.005	.005	.003	.004	.002	.004	.003	.005	.007	.013	.012	.008	.006	22
12	.006	.006	.001	.002	.002	.005	.007	.005	.005		.004	.004	.003	.002	.003	.005	.004	.006	.006	.009	.008	.005	.005	.005	.005	23
13	.006	.009	.005	.007	.009	.008	.010	.007	.005		.003	.003	.005	.005	.009	.006	.006								.006	16
14	.017	.017	.017	.014	.018	.022	.022	.031	.029		.010	.005	.007	.005	.005	.005	.007	.007	.007						.014	18
15												.007	.005	.007	.009	.003	.006	.006	.009	.016	.022	.024	.019	.026	.011	13
16	.029	.017	.012	.009	.009	.013	.019	.013	.012		.010	.008	.009	.009	.007	.007	.006	.008	.007	.007	.011	.019	.031	.034	.013	23
17	.020	.026	.023	.018	.011	.009	.009	.013	.012	.007	.007	.007	.007	.005	.006	.006	.008	.009	.008	.012	.014	.027	.032	.029	.014	24
18	.024	.019	.019	.019	.012	.029	.029	.026	.018		.007	.007	.007	.007	.007	.008	.009	.009	.009	.018	.019	.033	.038	.029	.017	23
19	.031	.031	.024	.019	.024	.017	.023	.026	.017	.017	.017	.009		.005	.007	.005	.007	.005	.005	.007	.010	.007	.008	.014	.013	23
20	.006	.007	.005	.005	.007	.007	.010	.018		.017	.012	.005	.007	.008	.009	.007	.017	.010	.009	.010	.009	.007	.009	.005	.009	23
21	.007	.007	.009	.009	.009	.012	.017	.022	.017	.019	.014	.012	.009	.009	.012	.012	.014	.012	.017	.019	.024	.014	.009	.007	.013	24
22	.012	.009	.009	.007	.007	.007	.009	.007	.005			.007	.007	.006	.008	.007	.008	.014	.009	.012	.008	.009	.009	.009	.008	22
23	.014	.013	.010	.008	.008	.007	.007	.007	.007		.009	.008	.007	.006	.005	.006	.007	.006	.009	.009	.007	.007	.009	.009	.008	23
24	.012	.014	.004	.007	.004	.010	.007	.007	.007	.007	.007	.009	.006	.005	.007	.005	.005	.007	.012	.017	.009	.007	.002	.009	.008	24
25	.013	.009	.007	.006	.006	.008	.012	.008	.007	.007	.008	.007	.007	.006	.006	.006	.005	.005	.005	.005	.005	.005	.005	.005	.007	24
26	.002	.002	.002	.005	.005	.009	.009	.007	.007	.007	.005	.009	.007	.007	.005	.009	.008	.009	.009	.005	.005	.005	.005	.005	.006	24
27	.005	.005	.005	.005	.007	.009	.012	.009	.002	.007	.007	.009		.010	.010	.010	.010	.010	.008			.009	.008	.008	.008	21
28	.007	.007	.007	.007	.009	.012	.012	.013	.012																.010	9
29										.006	.005	.007	.006	.005	.009	.006	.005	.007	.007	.009	.007	.009	.012	.012	.007	15
30	.012	.014	.013	.007	.012	.012	.014	.012	.007	.007	.007	.006	.006	.007	.007	.006	.007	.007	.007	.007	.007	.007	.002	.002	.002	24
31	.007	.006	.009	.005	.006	.007	.006	.008	.009	.008	.007	.006	.006	.005	.005	.006	.005	.006	.007	.006	.009	.006	.007	.005	.007	24
AVG	.012	.011	.009	.008	.009	.011	.012	.012	.009	.009	.007	.007	.006	.006	.006	.006	.007	.007	.008	.010	.012	.014	.013	.012	.009	
NO.	25	25	25	25	25	25	25	25	24	17	23	24	24	27	27	27	27	24	24	24	24	25	25	25		597
MAX	.031	.031	.029	.019	.024	.029	.029	.031	.029	.019	.017	.012	.009	.010	.012	.012	.017	.014	.017	.019	.029	.034	.038	.034	.038	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(37302099AA051

NITROGEN DIOXIDE
4260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	AM												PM												DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.005	.005	.004	.004	.005	.009	.008	.010	.007	.007	.007	.006	.005	.005	.004	.005	.006	.007	.008	.009	.023	.025	.023	.020	.009 24
2	.016	.014	.014	.014	.008	.010	.016	.012	.037	.032	.024	.012	.006	.005	.005				.007	.007	.015	.034	.027	.018	.016 21
3	.019	.017	.017	.010	.015	.019	.019	.020	.007	.007	.007	.007	.017	.015	.007	.007	.007	.010	.012	.015	.015	.015	.022	.023	.013 24
4	.017	.015	.010	.010	.010	.010	.010	.014	.012	.009	.007	.007	.007	.007	.007	.007	.007	.012	.010	.007	.012	.012	.010	.007	.004 .010 24
5	.005	.005	.005	.005	.005	.010	.024	.023	.015	.015	.012	.009	.005	.007	.010	.012	.012	.012	.012	.011	.015	.012	.007	.015	.011 24
6	.010	.009	.009	.007	.010	.012	.012	.010	.007	.007	.010	.007	.010	.005	.005	.005	.007	.007	.012	.015	.017	.012	.015	.017	.010 24
7	.015	.015	.012	.012	.007	.007	.007	.007	.007	.005	.005	.005	.005	.005	.005	.006	.005	.006	.007	.012	.015	.015	.018	.014	.009 24
8	.016	.014	.016	.009	.012	.017	.014	.012	.007	.007	.007	.007	.005	.005	.007	.007	.009	.009	.010	.017	.015	.019	.015	.012	.011 24
9	.015	.017	.032	.018	.015	.017	.020	.011	.007	.007	.005	.005	.005	.009	.004	.004	.005	.005	.007	.012	.022	.027	.011	.005	.012 24
10	.005	.005	.002	.002	.005	.012	.010	.014	.010	.007	.005	.005	.002	.004	.004	.005	.005	.012	.009	.010	.009	.010	.018	.015	.008 24
11	.015	.015	.011	.010	.010	.013	.015					.005	.008	.005	.005	.007	.007	.006	.007	.007	.005	.005	.005	.005	.008 20
12	.005	.004	.003	.004	.005	.006	.005	.005	.005	.005	.005	.004	.007	.004	.006	.007	.008	.005	.006	.009	.012	.023	.014	.015	.007 24
13	.021	.017	.017	.012	.014	.016	.016	.014	.016	.012	.010	.007	.005	.007	.005	.005	.010	.007	.007	.010	.012	.022	.019	.012	.012 24
14	.010	.010	.010	.010	.010	.009	.006	.008	.010	.011	.015	.011	.010	.009	.007	.006	.006	.007	.015	.004	.002	.005	.005	.008	.008 24
15	.007	.007	.007	.006	.007	.014	.011	.010	.013	.017	.014	.007	.007	.007	.007	.007	.006	.007	.006	.007	.012	.010	.013	.007	.009 24
16	.005	.007	.007	.007	.010	.010	.012	.012	.010	.007	.007	.007	.007	.008	.007	.007	.008	.010	.011	.019	.010	.008	.007	.005	.0 24
17	.002	.002	.004	.002	.002	.004	.007	.004	.004	.002	.002	.002	.003	.004	.004	.004	.003	.003	.003	.004	.004	.015	.013	.008	.004 24
18	.002	.002	.002	.003	.006	.012	.015	.006	.006	.007	.007	.007	.007	.006	.008	.008	.009	.010	.012	.010	.009	.007	.006	.006	.007 24
19	.006	.006	.006	.007	.008	.010	.010	.014	.010	.015	.013	.013	.015	.018	.018	.011	.010	.012	.012	.013	.015	.015	.022	.024	.013 24
20	.018	.014	.010	.012	.011	.011	.012	.010	.007	.020	.016	.015	.015	.012	.009	.012	.013	.018	.017	.023	.024	.028	.029	.027	.016 24
21	.024	.019	.012	.012	.012	.010	.010	.009	.007	.005	.005	.005	.007	.005	.004	.005	.005	.007	.019	.027	.027	.017	.012	.012	.011 24
22	.005	.006	.008	.008	.009	.011	.008	.015	.022	.029	.044	.019	.012	.009	.008	.009	.008	.008	.012	.015	.016	.015	.010	.017	.013 24
23	.014	.004	.004	.005	.005	.015	.019	.024	.027	.013	.012	.012	.005	.005	.005	.004	.006	.004	.007	.002	.002	.000	.000	.002	.008 24
24	.000	.000	.002	.002	.003	.005	.007	.007	.007	.005	.004	.005	.007	.008	.006	.005	.007	.007	.008	.006	.013	.014	.010	.012	.006 24
25	.007	.007	.007	.007	.012	.012	.013	.005	.005	.006	.006	.006	.006	.005											.007 14
26																									
27																									0
28	.007	.007	.005	.004	.005	.004	.008	.005	.003	.000	.001	.002	.003	.006	.005	.004	.004	.004	.008	.005	.004	.004	.004	.004	.004 10
29	.000	.000	.000	.000	.001	.002	.004	.004	.004	.004	.004	.011	.006	.005	.004	.007	.006	.007	.010	.018	.019	.016	.015	.011	.007 24
30	.005	.005	.006	.007	.006	.006	.009	.014	.017	.012	.009	.007	.005	.006	.006	.006	.005	.005	.008	.011	.014	.011	.011	.008	.008 24
31	.005	.011	.009	.007	.011	.017	.017	.013	.004	.005	.004	.004	.004	.003	.005	.006	.007	.006	.007	.011	.018	.018	.018	.017	.009 24
AVG	.010	.009	.009	.007	.008	.011	.012	.011	.010	.010	.010	.008	.007	.007	.006	.006	.007	.008	.009	.011	.013	.014	.013	.012	.010
NO.	29	29	29	29	29	29	29	28	28	28	28	29	29	29	29	28	28	28	29	29	29	29	29	29	689
MAX	.024	.019	.032	.018	.015	.019	.024	.024	.037	.032	.044	.019	.015	.018	.018	.012	.013	.015	.019	.027	.027	.034	.029	.027	.044

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
TULSA CO
NATIONAL GUARD ARMORY, SPERRY,
(373020996A051

NITROGEN DIOXIDE
42602I4
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

SEP 1977

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.013	.009	.009	.008	.007	.002	.004	.007	.004	.009	.007	.011	.009	.009	.007	.009	.005	.007	.009	.017	.017	.019	.016	.014	.009 24
2	.011	.009	.008	.005	.005	.005	.007	.015	.027	.013	.006	.006	.008	.008	.007	.006	.005	.007	.011	.024	.022	.018	.014	.011	.011 24
3	.009	.008	.009	.009	.009	.009	.007	.012	.019	.014	.009	.007	.009	.006	.006	.004	.004	.005	.007	.011	.011	.018	.024	.018	.010 24
4	.010	.012	.009	.008	.008	.007	.010	.010	.011	.011	.008	.008	.009	.009	.008	.004	.006	.006	.008	.006	.009	.005	.005	.009	.007 24
5	.001	.001	.002	.002	.003	.002	.003	.002	.001	.009	.003	.004	.003	.003	.009	.003	.004	.005	.007	.009	.012	.011	.005	.002	.004 24
6	.003	.003	.004	.004	.005	.007	.014	.007	.009	.009	.003	.001	.000	.000	.000	.003	.003	.009	.004	.008	.008	.004	.004	.004	.004 24
7	.004	.004	.004	.002	.007	.009	.009	.008	.009	.009	.004	.004	.004	.004	.004	.004	.004	.007	.014	.027	.024	.014	.008	.005	.008 24
8	.007	.004	.004	.004	.005	.006	.007	.012	.042	.029	.012	.007	.007	.009	.007	.009	.007	.010	.008	.012	.019	.014	.014	.009	.011 24
9	.004	.003				.007	.009	.012	.004	.009	.003	.004	.004	.003	.004	.005	.006	.006	.004	.004	.004	.005	.004	.004	.005 21
10	.004	.004	.004	.007	.007	.007	.008	.007	.009	.010	.008	.007	.009	.009	.007	.005	.004	.007	.009	.009	.007	.008	.014	.015	.007 24
11	.008	.009	.008	.009	.008	.005	.006	.005	.005	.006	.007	.007	.010	.012	.009	.008	.007	.004	.008	.009	.010	.010	.004	.004	.007 24
12	.004	.004	.004	.004	.005	.005	.009	.017	.015		.004	.004	.003	.003	.003	.004	.010	.010	.013	.007	.017	.014	.005	.005	.007 23
13	.005	.001	.001	.002	.005	.007	.007	.008	.006	.004	.007	.003	.003	.003	.005	.002	.002	.003	.005	.004	.003	.001	.001	.002	.004 24
14	.002	.002	.002	.003	.004	.006	.007	.006	.006	.005	.006	.006	.005	.006	.006	.004	.010	.007	.004	.005	.005	.004	.004	.002	.005 24
15	.000	.000	.000	.000	.000	.002	.003	.005	.004		.005	.005	.005	.005	.005	.004	.014	.014	.017	.014	.021	.020	.012	.009	.007 23
16	.011	.008	.007	.010	.006	.009	.014	.014	.016	.011	.013	.016	.011	.010	.011	.011	.014	.014	.018	.021	.024	.024	.018	.014	.014 24
17	.009	.007	.006	.005	.005	.006	.012	.012	.014	.010	.007	.006	.007	.007	.009	.008	.009	.010	.019	.016	.015	.011	.010	.009	.009 24
18	.011	.011	.012	.009	.009	.010	.010	.010	.006	.006	.006	.007	.007	.006	.008	.007	.008	.007	.006	.005	.007	.017	.006	.006	.008 24
19	.002	.002	.003	.003	.004	.006	.014	.004	.004	.003	.003	.003	.002	.002	.003	.003	.004	.007	.017	.019	.018	.009	.004	.004	.006 24
20	.004	.003	.002	.002	.002	.002	.003	.007	.011	.030	.014	.012	.012	.011		.007	.007	.008	.013	.013	.013	.014	.009	.004	.009 23
21	.004	.004	.004	.004	.009	.010	.018	.019	.009	.008	.006	.005	.004	.004	.004	.004	.004	.004	.007	.006	.007	.005	.004	.005	.007 24
22	.009	.008	.009	.010	.007	.007	.014	.012	.010	.010	.008	.010	.008	.008	.007	.007	.007	.007	.009	.009	.012	.018	.010	.009	.009 24
23	.004	.006	.004	.004	.006	.011	.018	.020	.014	.004	.005	.006	.010	.014	.010	.010	.011	.014	.015	.019	.014	.010	.010	.010	.011 24
24	.005	.003	.001	.001	.001	.005	.006	.008	.005	.005	.005	.005	.005	.004	.005	.005	.009	.024	.022	.014	.013	.010	.009	.007	.007 24
25	.007	.007	.006	.007	.007	.005	.004	.005	.009	.005	.004	.004	.005	.004	.004	.004	.006	.010	.012	.010	.008	.005	.006	.005	.006 24
26	.004	.002	.003	.003	.004	.007	.012	.012	.009	.023	.010	.007	.009	.007	.007	.008	.008	.007	.012	.020	.022	.014	.015	.009	.010 24
27	.006	.005	.004	.006	.007	.007	.010	.011	.011	.008	.007	.007	.008	.007	.008	.008	.007	.008	.009	.006	.006	.006	.006	.007	.007 24
28	.004	.004	.004	.004	.005	.008	.009	.013	.007	.007	.007	.008	.008	.009	.007	.009	.008	.005	.009	.004	.004	.005	.004	.004	.006 24
29	.002	.003	.002	.004	.004	.005	.009	.008	.006	.006	.006	.006	.006	.006	.006	.005	.006	.005	.009	.005	.004	.005	.011	.007	.006 24
30	.007	.007	.005	.007	.006	.011	.012	.015	.012	.009	.006	.005	.006	.006	.007	.007	.011	.013	.017	.008	.007	.011	.008	.009	.009 24
AVG	.006	.005	.005	.005	.006	.006	.009	.010	.010	.009	.007	.006	.006	.006	.006	.006	.007	.008	.010	.012	.012	.011	.009	.007	.008
NO.	30	30	29	29	29	30	30	30	30	28	30	30	30	30	29	30	30	30	30	30	30	30	30	30	714
MAX	.013	.012	.012	.010	.009	.011	.018	.020	.042	.030	.014	.016	.012	.014	.011	.011	.014	.018	.024	.027	.024	.024	.024	.018	.042

032079

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995805)

NITROGEN DIOXIDE
#760214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

JUL 1977

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.006	.003	.001	.004	.003	.003	.006	.005	.006	.007	.009	.003 24
2	.009	.007	.006	.004	.006	.004	.002	.003	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.003	.001	.003	.003 24
3	.003	.003	.003	.002	.003	.003	.003	.001	.001	.001	.001	.001	.001					.003	.003	.003	.006	.006	.005	.003	.003 20
4	.006	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.001	.002	.003	.006	.006	.006	.006	.002 24
5	.003	.001	.001	.001	.003	.003	.003	.003	.003	.003	.001	.001	.001	.001	.001	.001	.001	.001	.001	.003	.006	.006	.006	.006	.002 24
6	.004	.006	.004	.004	.003	.003	.003	.003	.003	.003	.002	.001	.001	.001	.001	.001			.004	.005	.006	.008	.005	.003	.003 22
7	.003	.003	.003	.003	.003	.004	.004	.003	.003	.003	.002	.002	.002	.002	.002	.003	.002	.003	.003	.005	.005	.005	.006	.005	.003 24
8	.003	.003	.005	.005	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.004	.005	.005	.005	.003 24
9	.005	.005	.003	.005	.005	.005	.005	.005	.006	.005	.005	.004			.004	.004	.004	.004	.005	.005	.007	.007	.008	.008	.005 22
10	.007	.006	.006	.005	.005	.006	.006	.005	.004	.004	.004	.004	.004	.004	.005	.004	.004	.004	.004	.006	.007	.010	.010	.009	.006 24
11	.005	.005	.004	.004	.004	.004	.005	.008	.007	.009	.008	.005	.007	.005	.005							.004	.005	.004	.004 .005 19
12	.004	.004	.004	.004	.004	.006	.008	.008	.008	.008	.006	.005	.006	.006	.006			.003	.003	.004	.003	.002	.004	.006	.005 22
13	.006	.004	.007	.006	.006		.006	.006	.005	.006	.007	.005	.006	.005	.005				.003	.008	.009	.005	.006	.009	.006 20
14	.010	.009	.007	.007	.007	.009	.009	.008	.006	.005	.004	.005	.004	.005	.004	.005							.007	.006	.006 18
15	.008	.007	.007	.008	.008	.012	.013	.014	.006	.005	.005	.004	.004	.005	.006	.008			.006	.006	.007	.008	.010	.011	.008 22
16	.010	.010	.020	.013	.010	.010	.008	.008	.005	.003	.005	.003	.003	.005	.005	.008	.005	.005	.005	.005	.008	.005	.005	.005	.007 24
17	.009	.008	.009	.007	.008	.011	.009	.005	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.005	.005	.006	.005	.005	.006	.005 24
18	.007	.004	.006	.006	.006	.007	.006	.005	.004	.004	.003	.003	.003	.003	.003	.002		.002	.002	.003	.004	.005	.005	.006	.004 23
19	.006		.006	.006	.005	.006	.010	.009	.005	.004	.004	.004	.003	.003	.004	.005	.005	.005	.004	.005	.004	.008	.007	.005	.005 23
20	.006		.006	.007	.009	.009	.011	.011	.005	.005	.003	.002	.002	.002	.002	.004	.006	.014	.029	.015	.009	.009	.008	.008	.008 23
21	.010		.005	.006	.007	.008	.010	.006	.004	.004	.004	.004	.003	.004	.006	.003			.006	.006	.006	.006	.005	.005	.006 21
22	.004		.004	.004	.004	.003	.003	.004	.004	.003	.002	.003	.003	.002	.002	.002	.002	.004	.001	.002	.001	.004	.005	.005	.003 23
23	.006		.006	.004	.003	.004	.003	.004	.005	.005	.006	.004	.003	.002	.002	.002	.002	.003	.004	.005	.005	.005	.006	.008	.004 23
24	.009	.007	.005	.006	.005	.004	.003	.003	.003	.003	.003	.003	.003	.002	.002	.002	.002	.003	.004	.005	.006	.004	.004	.004	.004 24
25	.003	.002	.002	.002	.004	.004	.005	.004	.004		.004	.003	.003	.003	.002	.002	.002	.003	.005	.005	.006	.004	.004	.004	.004 24
26	.004	.003	.003	.004	.004	.004	.004	.004	.005		.003	.002	.005	.005	.005	.005	.005	.005	.004	.003	.004	.004	.004	.004	.004 23
27	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.004	.003	.002	.002	.002	.002	.003	.003	.003	.003	.003	.004	.003 24
28	.005	.004	.004	.004	.004	.005	.005		.007	.007	.006	.005	.005	.004	.005	.003	.002	.003	.003	.006	.007	.008	.001	.007	.005 23
29	.014	.012	.011	.009	.007	.006	.005	.004	.003	.004	.003	.003	.003	.002	.002	.003	.002	.003	.004	.005	.007	.001	.007	.005	.005 24
30	.006	.006	.006	.005	.005	.004	.004	.003	.003	.003	.003	.002	.002	.003	.002	.002	.002	.002	.003	.006	.005	.002	.002	.002	.003 24
31	.004	.005	.003	.004	.003	.004	.004	.004	.004	.003	.003	.002	.002	.002	.002	.001	.001	.001	.001	.001	.002	.001	.001	.001	.002 24
AVG	.006	.005	.005	.005	.005	.005	.005	.005	.004	.004	.004	.003	.003	.003	.003	.003	.003	.003	.004	.005	.005	.005	.005	.006	.004
NO.	31	26	31	31	31	30	31	30	31	29	31	31	30	29	30	27	22	25	29	29	30	30	31	31	706
MAX	.014	.012	.020	.013	.010	.012	.013	.014	.008	.009	.008	.005	.007	.006	.006	.008	.006	.014	.029	.015	.009	.010	.010	.011	.029

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A05)

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	DAILY MEAN	NO.
1	.001	.002	.002	.003	.002	.002	.002	.002	.002	.004	.004	.007	.007	.002	.001				.007	.008	.008	.007	.011	.010	.004	21
2	.012	.012	.009	.008	.007	.007	.006	.008	.009	.007	.006	.006	.004	.006	.005	.006	.006		.006	.008	.009	.009	.008	.008	.008	23
3	.008	.009	.008	.007	.007	.007	.009	.009	.007	.006	.007	.006	.006	.007	.006	.005	.005		.005	.007	.008	.006	.009	.005	.007	23
4	.003	.003	.003	.003	.005	.006	.005	.005	.006	.006	.000	.008	.000	.001	.006	.006		.005	.005	.006	.006	.004	.005	.005	.005	23
5	.005	.005	.005	.005	.005	.007	.007	.009	.008	.008	.006	.005	.006	.005	.005	.004	.005	.006	.008	.006	.006	.006	.005	.006	.006	24
6	.005	.005	.005	.005	.006	.006	.006	.006	.006	.006	.006	.006	.005	.005	.005	.005	.005	.005	.004	.005	.006	.008	.008	.007	.006	24
7	.005	.006	.005	.005	.005	.006	.006	.006			.003	.003	.002	.002	.002	.003	.003	.003	.003	.004	.005	.006	.006	.006	.004	22
8	.009	.007	.005	.005	.005	.006	.006	.007	.006	.005	.005	.005	.004	.004	.005	.004	.005	.004	.004	.004	.006	.008	.006	.007	.007	24
9	.007	.007	.009	.009	.008	.007	.007		.006	.005	.005	.005	.004	.005	.004	.004	.004	.003	.003	.004	.005	.005	.005	.004	.005	23
10	.004	.005	.005	.003	.005	.006	.007			.005	.004	.003	.003	.003	.004	.004	.004	.003	.003	.004	.005	.006	.006	.005	.006	24
11	.007	.007					.005		.004	.004	.003	.003	.003	.003	.004	.004	.004	.005	.007	.007	.008	.007	.006	.005	.005	19
12	.005	.005	.005	.005	.005	.004	.005		.004	.005	.004	.004	.003	.003	.003	.003	.003	.003	.003	.004	.010	.011	.008	.008	.005	23
13	.008	.007	.007	.008	.007	.010	.012		.007	.006	.006	.005	.003	.003	.004	.005	.006	.008	.011	.012	.013	.008	.013	.012	.008	23
14	.009	.007	.007	.008	.007	.007	.007	.008	.009	.009	.005	.005	.005	.005	.005	.004	.006	.004	.005	.003	.003	.003	.003	.003	.006	24
15	.004	.004	.004	.004	.004	.006	.005	.006	.007	.008	.017	.021	.007		.008	.006	.006	.006	.006	.007	.008	.004	.003	.003	.007	23
16	.003	.003	.003	.003	.004	.005	.004	.004	.004	.004	.003	.003	.003	.004	.003	.003	.005	.004	.003	.003	.003	.003	.003	.003	.003	24
17	.003	.003	.003	.003	.003	.003	.004	.003	.003	.002	.002	.003	.003	.003	.003	.002	.002	.002		.002	.002	.002	.002	.003	.003	23
18	.003	.003	.002	.003	.003	.005	.006	.006	.005	.005	.006	.005	.003		.001	.004	.005	.003	.003	.003	.003	.003	.004	.005	.004	23
19	.006	.006	.006	.006	.005	.006	.006	.037	.008	.007	.007	.007	.012	.016	.012			.010	.009	.008	.007	.006	.005	.005	.008	22
20	.005	.006	.006	.007	.007	.007	.009	.005	.008	.006	.004	.005	.005	.004	.005	.005	.005	.009	.011	.009	.007	.007	.006	.005	.006	24
21	.004	.005	.004	.004	.003	.003	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.005	.005	.004	.002	.002	.003	24
22	.003	.003	.003	.003	.002	.002	.002		.013	.011	.008	.007	.007	.008	.009	.008	.007	.005	.005	.006	.007	.006	.005	.005	.006	23
23	.007	.006	.005	.005	.005	.007	.012		.011	.006	.004	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.008	.004	.003	.005	23
24	.003	.003	.003	.003	.003	.003	.003		.006	.006	.007	.004	.003	.003	.002	.002	.003	.003	.003	.003	.003	.003	.005	.004	.004	23
25	.006	.007	.007	.006	.006	.006	.006	.008	.012	.004		.004	.003	.002	.004	.004	.005	.010	.009	.008	.008	.008	.004	.005	.006	23
26	.004	.005	.005	.004	.003	.005	.005	.004	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.003	.005	.005	.004	.004	.004	.004	24
27	.004	.004	.005	.005	.004	.004	.004	.004	.004	.003	.003	.003	.002	.002	.002			.003	.003	.003	.003	.003	.003	.003	.003	22
28	.003	.003	.003	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.008	.005	.003	.002	.002	.002	.002	.002	.003	24
29	.002	.002	.002	.002	.002	.002	.002	.003	.003	.003	.003	.002	.002					.001	.001	.001	.002	.001	.001	.002	.001	21
30	.001	.001	.002	.004	.004	.006	.006	.005	.003	.001		.000	.000	.000	.000	.001	.001	.005	.003	.004	.006	.006	.007	.009	.003	23
31	.005	.002	.002	.000	.002	.002	.002	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.001	.002	.005	.003	.002	.001	.002	.001	24
AVG	.005	.005	.005	.005	.005	.005	.006	.005	.006	.005	.005	.005	.004	.004	.004	.004	.005	.005	.005	.005	.006	.005	.005	.005	.005	
NO.	31	31	30	30	30	30	31	23	29	30	29	31	31	28	30	27	27	28	30	31	31	31	31	31		711
MAX	.012	.012	.009	.009	.008	.010	.012	.037	.013	.011	.017	.021	.012	.016	.012	.009	.019	.013	.012	.017	.013	.011	.013	.012	.021	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A051)

NITROGEN DIOXIDE
4260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.005	.005	.005	.007	.005	.001	.000	.000	.007	.007		.010	.003	.001	.001	.001	.002	.005	.005	.006	.006	.008	.006	.007	.004 23
2	.006	.005	.006	.006	.005	.004	.003	.007	.007	.005	.001	.001	.002	.002	.002	.006	.005	.003	.005	.012	.007	.010	.010	.010	.005 24
3	.011	.007	.008	.006	.005	.006	.002	.005	.003	.007	.003														.006 11
4																									0
5													.002	.002	.002	.001	.002	.002	.002	.002	.002	.002	.002	.002	.002 12
6	.002	.002	.003	.005	.003		.005	.003	.004	.002	.002		.002	.002	.002	.002	.001	.001	.002	.002	.003	.002	.002	.002	.002 22
7	.003	.003	.002	.002	.001	.002	.002	.005	.007	.002			.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001 23
8	.000	.000	.000	.000	.000	.000	.000	.000	.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000 22
9		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.001	.001	.001	.001	.001	.001	.002	.002	.003	.002	.002	.001	.001 22
10	.002	.002	.002	.003	.002	.002	.002	.002		.006	.005	.006	.002	.002	.003	.003	.003	.002	.001	.001	.001	.001	.001	.002	.002 23
11	.002	.003	.005	.004	.006	.006	.003		.002	.002	.009	.007	.007	.006	.006	.003	.005	.005	.004	.005	.006	.006	.006	.009	.005 23
12	.001	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001		.001	.001	.001	.001	.001	.001	.000	.001	.000	.000	.000	.001 23
13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001		.000	.000	.000	.000	.000	.000	.001	.000	.000	.000	.000	.000 23
14	.000	.001	.001	.001	.001	.001	.001	.001	.001	.001	.000	.001		.001	.001	.000	.000	.001	.000	.000	.000	.000	.000	.000	.001 23
15	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.001	.001	.000	.000	.001	.002	.002	.006	.006	.006	.006	.006	.002 23
16	.002	.002	.002	.001	.001	.001	.002	.002																	.003 8
17																									0
18																									0
19												.005	.005	.005	.005	.002	.000	.003	.006	.005	.005	.007	.007	.006	.005 13
20	.007	.007	.007	.007	.006	.006	.006	.007	.012	.016		.014	.010	.018	.019	.012	.011	.011	.011	.015	.016	.015	.015	.012	.011 23
21	.015	.010	.009	.010	.010	.011	.011	.011	.011	.010	.009	.008	.008	.003	.002	.002	.002	.003	.005	.005	.007	.007	.008	.008	.008 24
22	.008	.008	.008	.009	.010		.010	.011	.013	.019	.010	.008	.007	.001		.004	.005	.001	.004	.007	.007	.012	.013	.006	.008 22
23	.006	.006	.006	.006	.006	.007	.007	.007	.006	.006	.006	.005	.006	.006	.005	.004	.002	.005	.005	.006	.007	.007	.006	.005	.006 24
24	.005	.005	.004	.004	.004	.004	.004	.005	.006	.009	.002	.002	.000	.000		.006	.007	.008	.013	.011	.012	.011	.011	.012	.006 23
25	.012										.011	.006	.005	.007	.007	.005	.005	.005	.008	.011	.011	.011	.011	.011	.008 15
26	.011	.011	.012	.012	.012	.012	.013	.022	.018	.022	.019	.008	.007	.007	.008	.010	.010		.004	.005	.006	.007	.007	.005	.011 23
27	.005	.005	.005	.005	.005	.006	.006	.007	.011	.006	.005	.007	.006	.005		.000	.000	.000	.000	.000	.000	.001	.002	.002	.004 23
28	.002	.002	.001	.001	.001	.001	.001	.002	.005	.006	.006	.006	.002	.001	.002	.002		.003	.002	.003	.002	.000	.003	.002	.002 23
29	.001	.001	.001	.001	.002	.002	.002	.005	.007	.006	.005	.005			.003	.002	.001	.000	.000	.000	.001	.005	.001	.000	.002 22
30	.000	.001	.004	.003	.000	.002	.004	.001	.002	.000	.000	.000	.000	.000	.000	.000		.003	.005	.005	.005	.004	.005	.003	.005	.002 23
AVG	.005	.004	.004	.004	.004	.003	.004	.004	.006	.006	.005	.005	.004	.003	.003	.003	.003	.003	.004	.004	.004	.005	.005	.005	.004
NO.	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	563
MAX	.015	.011	.012	.012	.012	.012	.013	.022	.018	.022	.019	.016	.010	.018	.019	.012	.011	.011	.013	.015	.016	.015	.015	.012	.022

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
[373140990AQ51

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5																			.007	.008	.009	.011	.009	.007	.008	6
6	.008	.007	.008	.009	.008	.010	.008	.013	.007	.004	.006	.005	.005	.005	.006	.007	.007	.008	.004	.009	.011	.009	.014	.017	.008	24
7	.011	.009	.008	.007	.007	.009	.010	.007	.007	.006	.006	.004	.005	.007	.006	.004	.004	.005	.008	.004	.007	.010	.007	.004	.007	24
8	.007	.006	.004	.004	.003	.003	.003																		.004	7
9																										0
10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.004	.007	.002	.002	.002	.002	.000	.000	.001	.002	.004	.002	.001	.001	24
11	.002	.003	.003	.002	.002	.004	.005	.007			.003	.004	.002	.002	.001	.002	.001	.001	.000	.004	.006	.004	.003	.003	.003	22
12	.000	.001	.004	.002	.004	.007	.009	.006	.002	.001	.000	.001	.001	.002	.000			.002	.003	.004	.005	.009	.014	.013	.004	22
13	.009	.009	.007	.005	.008	.009	.007	.010	.005	.003	.001	.002	.002	.003	.002	.002			.000		.010	.010	.015	.014	.006	21
14	.012	.011						.009	.011		.014	.004	.001	.002	.002	.001	.000	.000	.000	.002	.006	.004	.003	.008	.005	18
15	.005	.004	.005	.005	.004	.004	.007	.007	.008		.005	.005	.005	.005	.002	.002	.002	.002	.001	.002	.003	.004	.005	.005	.004	23
16	.005	.002	.002	.002	.002	.002	.002	.002	.005		.005	.005	.002	.002	.000	.000	.000	.000	.000	.000	.007	.005	.005	.005	.003	23
17	.010	.005	.005	.005	.005	.005	.002	.002	.002	.002	.002	.000	.000	.000	.000	.000	.000	.000	.002	.002	.002	.005	.012	.015	.020	.004	24
18	.017	.010	.007	.007	.010	.010	.010	.012	.017		.005	.004	.002	.003	.003	.003	.001	.001	.001	.000	.002	.003	.005	.005	.006	23
19	.004	.003	.003	.003	.004	.004	.004	.005	.005	.002	.005	.003	.002	.002	.002	.001			.003	.001	.003	.005	.012	.010	.004	22
20	.008	.002	.005	.009	.005	.005	.005	.005	.009		.007	.005	.004	.002	.002	.002	.004	.005	.007	.010	.010	.007	.005	.005	.005	23
21	.005	.005	.005	.005	.004	.004	.004	.007	.015		.009	.006	.005	.004	.004	.002	.007	.007	.010	.015	.016	.012	.007	.007	.007	23
22	.005	.005	.003		.000	.001	.001	.002	.000	.001	.000	.009	.008	.004	.001	.001	.000	.003	.004	.003	.004	.002	.001	.002	.003	23
23	.002	.001		.003	.004	.004	.004	.004	.002	.003	.005	.005	.003	.003	.000	.001	.001	.000	.001	.000	.004	.001	.002	.011	.003	23
24	.011	.007	.007	.007	.010	.010	.009	.010	.004	.001	.001	.002	.003	.001	.001	.000	.001	.002	.003	.005	.009	.003	.003	.001	.004	24
25	.002	.004	.002		.007	.010	.009	.005	.003	.002	.002	.002	.000	.000	.002	.001	.002	.003	.000	.001	.001	.002	.000	.000	.003	23
26	.000	.000	.000		.001	.001	.002	.004	.006	.003	.002	.000	.003	.000	.001	.012	.009	.002	.001	.001	.003	.003	.002	.002	.003	23
27	.002	.003	.004	.004	.002	.003	.003	.004	.003	.002	.001	.001	.001	.001	.001	.001	.001	.000		.002	.001	.001	.002	.002	.002	23
28	.002	.003	.002		.002	.003	.003	.002	.002	.002	.001	.002	.001	.000	.001	.003	.004	.003	.002	.005	.007	.004	.004	.002	.003	23
29	.008	.005			.002	.005	.006	.005	.004	.002	.001	.002	.000	.000	.002	.002	.000			.005	.007	.005	.007	.004	.004	19
30	.007	.007	.007	.010	.010	.009	.006	.007			.009	.007	.007	.006	.005	.004	.004	.005	.004	.006	.006	.002	.002	.002	.006	22
31	.004	.005	.004	.006	.006	.006	.006	.004	.002	.009	.002	.002	.002	.002	.002	.002	.002	.004	.002	.004	.006	.004	.004	.004	.004	24
AVG	.006	.005	.004	.005	.004	.005	.005	.006	.005	.003	.004	.003	.003	.002	.002	.002	.002	.003	.003	.004	.006	.005	.006	.006	.004	
NO.	25	25	22	19	24	24	24	24	22	16	24	24	24	24	24	23	22	21	22	23	25	25	25	25		556
MAX	.017	.011	.008	.010	.010	.010	.010	.013	.017	.009	.014	.009	.008	.007	.006	.012	.009	.008	.010	.015	.016	.012	.015	.020	.020	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140994A051

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

AUG 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.005	.005	.004	.002	.002	.005	.007	.005	.005		.009	.009	.007	.005	.004	.002	.006	.005	.001	.004	.009	.009	.009	.014	.006	23
2	.012	.011	.015	.015	.006	.006	.007	.006	.006		.005	.004	.002	.002	.001	.004	.002	.004	.010	.005	.006	.010	.007	.011	.007	23
3	.009	.014	.011	.009	.009	.011	.011	.012	.011		.008	.006	.006	.007	.007	.006	.005	.004	.006	.006	.007	.011	.006	.007	.008	23
4	.004	.006	.009	.010	.005	.005	.004	.004	.004		.009	.005	.005	.004	.004	.004	.004	.002	.001	.002	.004	.004	.004	.007	.005	23
5	.004	.004	.006	.006	.005	.007	.006	.006	.007		.007	.006	.006	.005	.005	.004	.006	.005	.005	.004	.006	.004	.006	.007	.006	23
6	.004	.006	.006	.006	.006	.007	.006																		.004	7
7															.007	.006	.006	.004	.006	.007	.009	.009	.009	.008	.007	10
8	.008	.007	.006	.006	.007	.008	.009	.013	.008	.007	.006	.005	.004	.004	.006	.008	.007			.008	.011	.014	.011	.008	.008	22
9	.014	.013	.011	.014	.008	.013	.014	.014	.009	.008	.007	.006	.005	.006	.005	.006	.007	.007		.008	.013	.014	.018	.016	.010	23
10					.006	.013	.013	.019	.011	.007	.006	.005	.006	.007	.005	.008	.008	.004	.008		.008	.008	.013	.013	.009	19
11	.013	.012	.009	.008	.008	.011	.008	.008	.006	.007	.006	.008	.005	.005	.004	.005	.008		.016	.008	.008	.007	.007	.006	.008	23
12	.006	.006	.005	.005	.005	.006	.006	.004	.007	.007	.008	.005	.004	.008	.008	.007	.008		.008	.008	.007	.009	.011	.014	.007	23
13	.011	.011	.009	.011	.013	.012	.011	.011	.012	.011	.014		.009	.008	.008	.009	.008		.013	.011	.009	.011	.012	.009	.011	22
14	.010	.010	.008	.010	.008	.010	.010	.008	.010		.010	.008	.008	.008	.007	.006	.007	.006	.007	.005	.005	.005	.008	.006	.008	23
15	.005	.006	.008	.008	.007	.011		.006	.008	.008	.008	.006	.005	.005	.005	.005	.005	.005	.008	.007	.008	.011	.008	.008	.007	23
16	.008	.011	.012	.008	.009	.008		.013	.012	.008	.007	.006	.007	.008	.006	.006	.008	.009	.008	.007	.007	.005	.007	.005	.008	23
17	.006	.006	.006	.006	.006	.008	.007		.005	.005	.007	.004	.008	.005	.005	.007	.007	.008	.009	.007	.009	.007	.006	.006	.007	23
18	.005	.005	.005	.005	.006	.008		.009	.008	.008	.006	.008	.008	.008	.008	.008	.008	.008	.009	.007	.007	.007	.007	.007	.007	23
19	.007	.008	.007	.006	.006	.008		.008	.008	.005	.007	.007	.008	.009	.008	.008	.008	.008	.009	.011	.008	.009	.008	.008	.008	23
20	.008	.008	.008	.008	.008	.008		.008	.008	.008	.008	.008	.008	.008	.007	.006	.007	.008	.008	.011	.013	.011	.014	.013	.009	23
21	.018	.022	.020	.018	.019	.017	.014	.012	.007	.006	.006	.007	.005	.004	.004	.005	.007	.008	.008	.008	.011	.011	.016	.013	.011	24
22	.013	.012	.011	.009	.009	.011	.008	.009	.011	.012	.012	.008	.008	.006	.006	.006	.005	.005		.006	.008	.009	.011	.009	.009	23
23	.006	.005	.006	.005	.005	.007	.008	.012	.013	.015	.013	.007	.007	.006	.005	.005	.007	.007		.008	.011	.011	.009	.008	.008	23
24	.007	.006	.005	.005	.005	.005	.006	.006	.007	.009	.008	.007	.006	.006	.006	.005	.007		.008	.007	.007	.006	.008	.011	.007	23
25	.008	.008	.008	.011	.008	.012	.012	.013	.008	.007	.006	.006	.006	.006	.004	.004	.004	.004	.005	.012	.006	.006	.008	.008	.007	24
26	.008	.008	.009	.007	.007	.008	.009	.012	.010	.008	.006	.004	.008	.004	.004	.004	.004	.004	.004	.006	.007	.009	.008	.008	.007	24
27	.008	.013	.011	.008	.006	.006	.007	.008	.008	.008			.005	.005	.005	.005	.005	.005	.006	.007	.007	.005	.006	.005	.007	22
28	.007	.006	.008	.007	.007	.007	.006	.006	.008	.005	.006	.007	.007	.007	.008	.008	.006	.008	.007	.008	.006	.006	.005	.008	.007	24
29	.004	.004	.004	.005	.005	.008	.008	.008	.008	.008	.007	.008	.008	.007	.005	.005	.007	.005	.009	.009	.008	.009	.008	.009	.007	24
30	.008	.008	.006	.007	.008	.009	.009	.008	.009	.011	.009	.008	.008	.007	.005	.005	.005	.006	.007	.009	.009	.008	.008	.008	.008	24
31	.008	.008	.008	.008	.008	.009	.011	.012	.012	.016	.013	.006	.008	.006	.006	.006	.005	.005	.006	.008	.009	.013	.014	.013	.009	24
AVG	.008	.009	.008	.008	.007	.009	.009	.009	.008	.008	.008	.006	.006	.006	.006	.006	.006	.006	.007	.007	.008	.009	.009	.009	.008	
NO.	29	29	29	29	30	30	29	28	29	23	28	27	29	29	30	30	30	25	24	29	30	30	30	30		684
MAX	.018	.022	.020	.018	.019	.017	.014	.019	.013	.016	.014	.009	.009	.009	.008	.009	.008	.009	.016	.012	.013	.014	.018	.016	.022	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
U.S. POST OFFICE, VERA, OK.
(373140994A051)

NITROGEN DIOXIDE
4760214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

SEP 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	.009	.008	.008	.009	.007	.005	.007	.008	.008	.011	.007	.007	.008	.006	.005	.005	.004	.005	.007	.012	.008	.011	.008	.013	.008	24
2	.012	.010	.015	.010	.010	.012	.010	.012	.012	.017	.017	.012	.010	.010	.007	.005	.005	.005	.005	.015	.010	.012	.015	.015	.011	24
3	.013	.012	.014	.011	.008	.009	.011	.009	.012	.017	.016	.012	.009	.008	.008	.009	.008	.008	.008	.008	.008	.008	.014	.012	.012	.011	24
4	.014	.016	.009	.009	.011	.012	.011	.011	.008	.009	.011	.008	.008	.004	.006	.006	.008	.008	.008	.008	.006	.005	.008	.006	.006	.009	24
5	.004	.004	.004	.004	.004	.004	.004	.004	.006	.008	.011	.008	.008	.008	.008	.008	.008	.009	.011	.007	.009	.007	.008	.008	.004	.007	24
6	.004	.006	.007	.004	.004	.008	.008	.008	.011	.008	.004	.006	.006	.008	.011	.008	.012	.008	.011	.009	.008	.004	.008	.006	.007	24
7	.006	.004	.004	.004	.006	.007	.013	.008	.007	.008		.006	.008	.006	.006	.008	.007	.007	.014	.011	.016	.009	.011		.008	22
8				.004	.008	.011	.013	.009	.013	.018	.016	.012	.008	.008	.008	.008	.008	.008	.008	.009	.016	.008	.009	.011	.010	21
9	.009	.008	.008	.008	.008	.011	.012	.011	.008	.006				.006	.008	.009	.010	.010	.011	.010	.010	.010	.010	.010	.009	21
10	.010	.011	.010	.010	.011	.010	.009	.011	.010	.010	.010	.009	.008	.005	.006	.006	.010	.011	.010	.010	.005	.013	.010	.010	.009	24
11	.010	.010	.010	.010	.013	.015	.012	.010	.013	.013	.011	.014	.011	.013	.011	.010	.010	.013	.014	.013	.015	.013	.010	.010	.012	24
12	.014	.013	.013	.010	.010	.010	.010	.014	.015	.013	.010	.010	.010	.010	.008	.008	.009	.008	.013	.010	.009	.010	.009	.008	.011	24
13	.009	.009	.005	.005	.005	.009	.009	.009	.009	.008	.005	.009	.005	.005	.005	.006	.006	.005	.005	.005	.005	.005	.005	.006	.006	24
14	.006	.006	.008	.008	.008	.006	.005	.005	.006	.006	.006	.008	.006	.006	.006	.006	.005	.008	.008	.008	.005	.005	.008	.005	.005	.006	24
15	.006	.006	.006	.006	.007	.007	.007	.008	.007	.007	.007	.007	.007	.006	.006	.006	.008	.011	.011	.008	.009	.010	.009	.008	.007	24
16	.009	.009	.007	.010	.010	.008	.012	.010	.007	.012	.009	.010	.010	.009	.009	.008	.008	.010	.011	.010	.010	.010	.010	.007	.009	24
17	.006	.006	.007	.011	.010	.010	.010	.010	.010	.009	.009	.008	.006	.001	.001	.001	.002	.001	.005	.005	.005	.005	.005	.005	.006	24
18	.005	.005	.006	.008	.006	.009	.010	.008	.008	.008	.005	.006	.007	.008	.007	.006	.008	.007	.007	.007	.008	.008	.008	.006	.005	.007	24
19	.006	.006	.006	.006	.006	.008	.008	.007	.006	.006	.006	.006	.006	.006	.006	.007	.006	.007	.010	.010	.014	.015	.014	.013	.008	24
20	.012	.011	.011	.011	.010	.011	.011	.011	.010	.011	.012	.011	.009	.009	.008	.007	.006	.010	.009	.009	.008	.012	.015	.008	.010	24
21	.008	.007	.007	.006	.008	.008	.011	.007	.007	.008	.008	.006	.005	.005	.005	.006	.008	.008	.009	.008	.007	.007	.008	.008	.007	24
22	.006	.008	.009	.010	.011	.009	.007	.008	.009	.008	.008	.008	.008	.007	.006	.007	.006	.008	.011	.010	.011	.010	.009	.007	.008	24
23	.007	.008	.008	.008	.009	.010	.010	.015	.018	.013	.011	.010	.011	.010	.010	.010	.010	.010	.011	.010	.010	.010	.010	.010	.010	24
24	.010	.006	.007	.005	.005	.006	.006	.006	.007	.006	.007	.006	.006	.011	.013	.010	.008	.015	.010	.012	.011	.011	.010	.008	.008	24
25	.010	.010	.010	.010	.010	.010	.010	.010	.010	.010	.009	.009	.009	.009	.009	.008	.008	.009	.010	.013	.011	.010	.009	.009	.010	24
26	.008	.008	.008	.009	.009	.010	.010	.011	.010	.010	.010	.010	.010	.010	.010	.009	.009	.010	.011	.012	.010	.011	.010	.010	.010	24
27	.010	.010	.010	.010	.007	.011	.010	.010	.010	.011	.009	.009	.008	.008	.008	.008	.008	.007	.009	.008	.009	.010	.010	.010	.009	24
28	.010	.010	.010	.009	.009	.010	.010	.010	.011	.009	.009	.009	.009	.009	.010	.009	.010	.010	.010	.009	.009	.009	.009	.009	.009	24
29	.008	.008	.009	.009	.010	.010	.010	.009	.008	.009	.010	.010	.010	.010	.009	.010	.009	.008	.009	.008	.008	.009	.011	.009	.009	24
30	.009	.010	.010	.010	.009	.008	.009	.010		.010	.010	.010	.010	.010	.010	.011	.012	.011	.012	.010	.010	.010	.010	.010	.010	23
AVG	.009	.008	.008	.008	.008	.009	.009	.009	.009	.010	.009	.009	.008	.007	.008	.008	.008	.008	.010	.009	.009	.010	.009	.009	.009	
NO.	29	29	29	30	30	30	30	30	29	30	28	29	29	30	30	30	30	30	30	30	30	30	30	29		711
MAX	.016	.016	.015	.011	.013	.015	.013	.015	.015	.018	.017	.014	.011	.013	.011	.013	.012	.013	.014	.015	.016	.015	.015	.015	.018	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A05)

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

1-HOUR DATA LISTING

JUL 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1																									0
2																									0
3																									0
4																									0
5																									0
6																									
7	.002	.002	.002	.002	.002	.003	.006	.005			.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.003	.003	.002	10
8	.005	.005	.003	.003	.003	.003	.005	.003	.005	.003	.003	.003	.003	.003	.005	.003	.002	.002	.003	.003	.006	.005	.003	.003	22
9	.009	.008	.006	.005	.005	.006	.005	.005	.005	.005															
10													.003	.002	.003	.002	.002	.002	.001	.003	.003	.005	.008	.013	24
																								.006	10
11	.005	.002	.002	.003	.004	.005	.005	.005			.004	.002	.003	.002	.002	.002	.002	.002	.001	.002	.002	.007	.003	.003	22
12	.003	.003	.004	.004	.005	.006	.005	.005			.006	.005	.005	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.002	22
13	.002	.003	.003	.004	.004	.005	.004	.005		.005	.005	.004	.004	.003	.002	.002	.002	.002	.001	.001	.002	.002	.005	.005	23
14	.005	.005	.009	.007	.007	.013	.007	.005		.005	.005	.004	.002	.002	.002	.002	.003	.002	.002	.003	.002	.004	.005		22
15				.006	.006	.006	.007	.006		.005	.003	.003	.004	.002	.002	.003	.004	.005	.005	.006	.005	.005	.006	.005	20
16	.006	.006	.005	.006	.007	.005	.005	.005		.004	.004	.005	.004	.005	.005	.005	.005	.004	.005	.006	.006	.005	.005	.005	23
17	.005	.005	.005	.005	.005	.005	.006	.005	.005	.005	.005	.005	.004	.003	.003	.002	.003	.003	.003	.003	.005	.006	.005	.004	24
18	.005	.005	.004	.004	.005	.010	.008	.005	.005		.005	.005	.005	.004	.003	.003	.003	.003	.003	.004	.005	.008	.009	.005	23
19	.003	.003		.004	.004	.004	.005	.005	.005	.005	.004	.005	.005	.005	.004	.004	.005	.005	.005	.005	.005	.006	.007	.005	23
20	.009	.009		.010	.009	.006	.006	.005	.005	.004	.005	.005	.005	.005	.004	.004	.005	.005	.005	.005	.006	.007	.005	.005	23
21	.008	.007		.006	.006	.006	.005	.006	.006	.005	.005	.005	.004	.004	.005	.009	.005	.014							
22	.010	.006		.005	.004	.004	.005	.005	.005	.005	.005	.005	.004	.004	.005	.005	.005	.005	.005	.007	.006	.005	.006	.005	23
23	.006	.008		.009	.008	.008	.006	.005	.006	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.006	.005	23
24	.011	.008	.006	.006	.005	.005	.005	.005	.006	.005	.005	.005	.005	.005	.005	.005	.004	.004	.003	.004	.004	.005	.005	.007	23
25	.003	.003	.004	.005	.006	.013	.013	.008		.005	.006	.005	.005	.004	.004	.004	.005	.004	.004	.005	.005	.007	.006	.005	24
26	.003	.003	.003	.003	.004	.004	.005		.005	.005	.005	.005	.005	.005	.004	.004	.004	.005	.004	.004	.004	.003	.003	.003	23
27	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.004	.005	.005	.005	.005	23
28	.005	.005	.004	.005	.005	.009	.008	.005	.004		.004	.005	.005	.005	.004	.004	.005	.004	.003	.003	.003		.005	.005	23
29	.020	.015	.010	.008	.006	.007	.010	.009		.005	.005	.004	.003	.002	.002	.002	.002	.002	.002	.002	.003	.005	.006	.008	23
30	.005	.004	.004	.003	.003	.003	.005	.005	.005	.003	.004	.003	.002	.002		.002	.002	.001	.002	.004	.002	.002	.003	.002	23
31	.003	.005	.005	.005	.005	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.004	.003	.003	.004	.005	.004	.005	.004	.005	24
AVG	.006	.005	.005	.005	.005	.006	.006	.005	.005	.005	.005	.004	.004	.004	.003	.004	.003	.004	.003	.004	.005	.005	.006	.006	.005	
NO.	23	23	18	24	24	24	24	23	15	19	23	23	24	24	24	25	25	25	24	24	23	24	24	24	
MAX	.020	.015	.010	.010	.009	.013	.013	.009	.006	.005	.006	.005	.005	.006	.005	.009	.005	.014	.005	.009	.021	.014	.012	.016	.021	553

D3207A

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYMONA TRAILER COURT 1/4 MILE
(372260993A05)

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

AUG 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.004	.003	.003	.003	.003	.004	.003	.005	.004	.004	.004	.004	.005	.003	.003	.002	.002	.002	.003	.005	.004	.005	.006	.007	.004 24
2	.008	.011	.011	.003	.002	.003	.003	.003	.003	.003	.004	.004	.005	.005	.004	.005	.004	.005	.005	.006	.006	.006	.000	.007	.005 24
3	.007	.006	.005	.006	.006	.000	.006	.002	.007	.007	.005	.005	.005	.005	.004										.005 15
4																		.003	.003	.004	.004	.005	.006	.006	.004 7
5	.005	.004	.004	.004	.006	.007	.010	.005	.005		.007	.006	.006	.006	.005	.005	.006	.004	.006	.006	.006	.005	.005	.005	.006 23
6	.005	.005	.005	.005	.005	.006	.006	.006	.006	.006	.007	.007	.007	.006	.006	.005	.004	.003	.003	.003	.003	.003	.003	.003	.005 24
7	.003	.003	.004	.004	.005	.006	.007	.007	.007	.006	.006	.005	.005	.004	.004	.004	.003	.003	.003	.003	.003	.003	.004	.005	.005 .005 24
8	.005	.005	.005	.005	.006	.006	.006	.007	.007		.006	.006	.006	.005	.004	.004	.004	.004	.004	.004	.005	.005	.005	.005	.005 .005 23
9	.005	.005	.005	.005	.005	.005	.006	.007	.007	.007	.006	.006	.006	.006	.005	.005	.005	.005	.006	.007	.005	.007	.008	.006	.006 .006 24
10	.007	.006	.007	.007	.008	.012	.009	.009	.007	.007	.007	.006	.005	.004	.004	.004	.006	.006	.006						.007 19
11		.007	.009	.011	.011	.008	.007	.006	.005	.006	.006	.006	.006	.006	.005	.005	.006	.006	.007	.008	.006	.005	.006	.006	.007 23
12	.006	.006	.006	.005	.004	.004	.005	.006	.006		.007	.007	.006	.005	.005	.005	.005	.004	.004	.005	.006	.006	.008	.003	.005 23
13	.014	.011	.009	.010	.009	.009	.008	.007	.007		.009	.008	.007	.008	.006	.006	.006	.006	.007	.009	.018	.017	.012	.012	.009 23
14	.011	.010	.010	.010	.010	.009	.009	.010	.011	.011	.010	.008	.007	.007	.006	.004		.004	.011	.005	.006	.006	.006	.006	.008 23
15	.006	.007	.008	.007	.008	.007	.007	.007	.007	.008	.007	.008	.007	.006	.006		.007	.008	.008	.009	.008	.007	.006	.006	.007 23
16	.007	.007	.008	.007	.006	.007	.008	.007	.007	.007	.007	.007	.007	.007	.006	.006	.006	.006	.007	.007	.006	.008	.006	.006	.007 24
17	.006	.006	.006	.006	.007	.007	.007	.007	.007	.006	.005	.006	.006	.005	.004	.004	.004	.004	.006	.007	.007	.008	.007	.006	.006 24
18	.006	.006	.006	.006	.006	.007	.006	.007	.007	.008	.007	.005	.006	.006	.005	.006	.006	.006	.006	.007	.007	.008	.006	.006	.006 24
19	.008	.008	.007	.008	.007	.006	.006	.006	.007	.007	.007	.008	.010	.011	.011	.009	.010	.012	.011	.008	.008	.007	.007	.007	.008 24
20	.007	.007	.007	.008	.009	.008	.009	.009	.010	.010	.005	.004	.003	.003	.003	.003	.003	.003	.003	.008	.008	.007	.006	.006	.006 24
21	.007	.007	.008	.005	.005	.005	.007	.004	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.005	.014	.014	.012	.011	.006	.005 24
22	.008	.006	.006	.007	.007	.009	.008	.004	.004	.003	.003	.003	.003	.003	.003	.003	.005	.004	.003	.004	.004	.003	.004	.005	.005 24
23	.002	.002	.002	.002	.003	.003	.003	.004	.006	.004	.003	.003	.002	.002	.002	.002	.002	.002	.002	.003	.004	.007	.006	.006	.003 24
24	.003	.003	.005	.003	.003	.003	.003	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003	.003 .003 24
25																									0
26	.002	.002	.002	.002	.002	.002	.002	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002 24
27	.002	.002	.003	.003	.003	.004	.004	.004	.003	.003	.003	.003	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.002	.003 24
28	.001	.001	.002	.002	.002	.002	.002	.001	.001	.001	.002	.002	.002		.003			.004	.004	.004	.003	.003	.003	.004	.003 20
29	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.000		.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.000 23
30	.000	.000	.001	.002	.005	.004	.002	.001	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.003	.003	.001	.000	.000	.001 23
31	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.004	.003	.000	24
AVG	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005	.004	.004	.004	.004	.004	.005	.005	.005	.005	.005	.005	.005
NO.	28	29	29	29	29	29.	29	29	29	25	29	29	24	28	29	24	24	29	29	28	28	28	28	28	676
MAX	.014	.011	.011	.011	.011	.012	.010	.010	.011	.011	.010	.008	.010	.011	.011	.009	.010	.012	.011	.014	.018	.012	.012	.012	.018

03207A

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITROGEN DIOXIDE
#760214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372240903A051)

1-HOUR DATA LISTING

SEP 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.005	.004	.005	.004	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.002	.003	.003	.003	.001	24
2	.004	.005	.005	.005	.007	.007	.008	.003	.002	.002	.002	.000	.000	.000	.000	.000	.000	.000	.002	.002	.002	.003	.001	.003	.004	24
3	.003	.005	.005	.006	.006	.008	.013	.005	.006	.005	.003	.002	.000	.000	.000	.000	.000	.000	.000	.002	.003	.003	.004	.008	.001	24
4	.011	.013	.012	.013	.012	.009	.008	.007	.003	.001	.000	.000	.001	.001	.000	.000	.000	.001	.000	.000	.002	.001	.000	.000	.004	24
5	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.002	.000	.000	.000	24
6	.000	.000	.000	.000	.001	.002	.004	.003	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.003	.004	.004	.002	.000	.001	.001	24
7	.002	.001	.000	.000	.000	.002	.003	.002	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.003	.005	.008	.008	.008	.008	.002	24
8	.004	.003	.003	.003	.003	.004	.008	.004	.003	.003	.002	.000	.000	.000	.000	.000	.000	.001	.003	.005	.008	.008	.008	.008	.002	24
9	.000	.000	.000	.001	.002	.003	.006	.004	.003	.002	.001	.000	.000	.000	.000	.000	.000	.000	.002	.001	.000	.002	.002	.001	.001	20
10	.001	.002	.002	.002	.002	.003	.003	.004	.003	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	24
11	.002	.002	.003	.004	.007	.007	.005	.004	.003	.002	.003	.008	.008	.008	.006	.004	.004	.001	.002	.004	.006	.008	.009	.004	.005	24
12	.001	.000	.000	.000	.000	.000	.000	.000	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
13	.000	.000	.000	.000	.000	.002	.003	.002	.003	.003	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
14	.000	.000	.000	.000	.001	.001	.002	.002	.003	.003	.002	.002	.002	.004	.003	.003	.003	.002	.000	.000	.000	.000	.000	.000	.001	24
15	.000	.000	.000	.000	.000	.000	.002	.005	.003	.002	.001	.001	.000	.000	.001	.000	.000	.000	.001	.005	.004	.005	.005	.005	.002	24
16	.006	.004	.002	.002	.001		.004	.003	.001	.003	.010	.008	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	.002	23
17	.001	.001	.000	.000	.000	.000	.000	.000	.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
18	.000	.000	.000	.000	.000	.001	.001	.002	.003	.002	.002	.001	.001	.001	.001	.002	.001	.000	.000	.000	.002	.000	.000	.000	.001	24
19	.000	.000	.000	.000	.000	.002	.002	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	24
20	.007	.003	.003	.002	.005	.003	.007	.004	.010	.003	.005	.008	.003	.002	.003	.007	.006	.004	.005	.007	.008	.012	.008	.004	.005	24
21	.002	.001	.000	.000	.000	.001	.002	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.000	.001	.002	.002	.001	.000	.000	.001	24
22	.000	.000	.000	.000	.001	.002	.002	.004	.007	.005	.002	.002	.001	.001	.000	.000	.000	.000	.000	.003	.008	.007	.001	.001	.002	24
23	.002	.002	.002	.002	.001	.001	.001	.002	.003	.002	.002	.001	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
24	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.002	.005	.011	.012	.014	.012	.010	.003	24
25	.010	.005	.004	.004	.004	.004	.007	.003	.003	.003	.003	.002	.002	.001	.002	.002	.002	.003	.004	.003	.004	.002	.000	.000	.003	24
26	.000	.001	.000	.001	.002	.004	.007	.005	.003	.005	.004	.002	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
27	.000	.000	.001	.000	.000	.000	.002	.001	.002	.002	.000	.000		.001	.001	.001	.000	.000	.000	.000	.000	.000	.000	.002	.001	23
28	.004	.003	.002	.002	.002	.002	.002	.002	.002	.002	.003	.000	.001	.001	.001	.003	.001	.002	.002	.002	.001	.002	.003	.001	.002	24
29	.001	.001	.000	.001	.000	.001	.001	.001	.001	.002	.002	.002	.002		.001	.000	.000	.000	.000	.000	.001	.002	.003	.001	.001	23
30	.002	.002	.002	.003	.002	.002	.001	.002	.002	.002	.002	.001	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.001	24
AVG	.002	.002	.002	.002	.002	.003	.003	.003	.002	.002	.002	.001	.001	.001	.001	.001	.001	.001	.001	.003	.003	.003	.002	.002	.002	
NO.	30	30	30	30	30	29	30	30	30	30	30	30	29	30	29	30	30	29	29	29	29	30	30	30		713
MAX	.011	.013	.012	.013	.012	.009	.013	.007	.010	.005	.010	.008	.008	.008	.006	.007	.006	.004	.008	.021	.015	.014	.012	.010	.021	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A051

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

JUL 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	.002	.002	.002	.002	.002	.003	.007																		.003 7
2																									0
3																									0
4																									0
5																									0
6																									0
7																									0
8																									0
9																									0
10													.007	.008	.008	.008	.007	.008	.010	.010	.013	.007	.007	.008	11
11	.007	.007	.007	.007	.007	.007	.007	.007	.005	.007	.007	.007	.007	.008	.007	.008	.007	.005	.005	.005	.007	.012	.009	.011	.007 24
12	.010	.008	.006	.005	.006	.006	.006	.007		.006	.006	.005		.005	.006	.006	.006	.004	.007	.008	.007	.006	.009	.005	.006 22
13	.007	.007	.007	.007	.007	.007	.013	.009		.005	.004	.003	.003	.003	.004	.006	.003	.007	.007	.009	.009	.008			.005 21
14	.020	.018	.015	.014	.014	.013	.010	.012	.014	.008	.005	.003	.003	.004	.004	.005			.007	.008	.008	.010	.010	.009	.010 22
15	.007	.007	.007	.007	.008	.009	.009	.012	.012	.007	.007	.007	.007	.007	.005	.005	.004					.012	.012	.020	.009 20
16	.010	.007	.010	.010	.010	.007	.007	.010	.007	.007	.005	.005	.005	.007	.007	.005	.005		.007	.010	.007	.007	.012	.020	.008 23
17	.012	.010	.012	.010	.007	.007	.010	.007	.007	.005	.002	.002	.002	.002	.005	.005	.005	.005	.005	.005	.005	.005	.007	.007	.006 24
18	.005	.008	.010	.010	.006	.008	.013	.007		.005	.005	.003	.003	.003	.003	.003	.003	.005	.006	.007	.008	.007	.008	.015	.007 23
19	.015	.012	.016	.011	.012	.012	.012	.012			.007	.007	.007	.005	.003	.003	.003	.005	.005	.006	.005	.006	.006	.008	.008 22
20	.007	.007	.007	.007	.007	.007	.008	.008		.011	.007	.005	.007	.007	.005	.005	.007	.007	.008	.008	.008	.017	.012	.007	.008 23
21	.007	.007	.007	.007	.007	.007	.007	.007		.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.007	.008	.008	.007	.007	.005 .007 23
22	.005		.003	.003	.005	.005	.007	.006	.006	.005	.005	.003	.003	.002	.002	.002	.002	.003	.005	.005	.007	.007	.008	.007	.005 23
23	.007		.007	.007	.007	.007	.007	.007	.007	.007	.007	.003	.003	.003	.002	.002	.002	.005	.006	.008	.007	.008	.007	.008	.006 23
24	.007	.008	.010	.012	.012	.010	.008	.005	.005	.003	.004	.003	.003	.003	.002	.002	.002	.002	.002	.002	.007	.008	.007	.007	.006 24
25	.008		.005	.005	.007	.007	.007	.007	.005	.005	.003	.003	.003	.002	.002	.003	.005	.005	.003	.005	.003	.007	.005	.005	.005 23
26	.003	.003		.005	.007	.006	.005	.005	.003	.005	.007	.006	.006	.007	.007		.007	.007	.007	.007	.007	.007	.008	.007	.006 22
27	.007	.007	.007	.007	.007	.007	.007	.007		.007	.007	.007	.005	.003	.003	.002	.002	.002	.003	.003	.007	.010	.008	.007	.006 23
28	.008		.007	.007	.007	.007	.007	.007	.005	.003	.006	.005	.003	.003	.003	.003	.003	.005			.012	.007	.007	.007	.006 21
29	.007		.007	.005	.003	.005	.007	.007	.007	.005	.005	.006	.005	.003	.003	.003	.003	.003	.008	.012	.015	.010	.013	.011	.007 23
30	.012	.012	.012	.013	.012	.010	.010	.007	.007		.007	.005	.003	.003	.003	.003	.003	.005	.005	.007	.007	.003	.003	.003	.002 .007 23
31	.003	.006	.007	.007	.007	.005	.005	.003	.003	.003	.003	.005	.003	.003	.003	.002	.002	.003	.005	.002	.003	.005	.003	.002	.004 24
AVG	.008	.008	.008	.008	.008	.007	.008	.008	.007	.004	.006	.005	.004	.004	.004	.004	.004	.005	.005	.006	.006	.007	.008	.008	.008 .006
NO.	22	17	21	22	22	22	22	21	14	19	21	21	20	22	22	21	21	19	20	20	21	22	21	21	494
MAX	.020	.018	.016	.014	.014	.013	.013	.012	.014	.011	.007	.007	.007	.008	.008	.008	.008	.007	.008	.012	.015	.017	.013	.020	.020

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITROGEN DIOXIDE
4260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992405)

1-HOUR DATA LISTING

AUG 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.002	.002	.002	.002	.005	.005	.006	.007		.005	.003	.003	.003	.002	.002	.002	.003	.007	.003	.005	.008	.007	.008	.008	.004 23
2	.013	.020	.015	.008	.003	.005	.005	.005		.002	.002	.002	.002	.002	.002	.003	.002	.002	.008	.008	.006	.005	.006	.006	.006 23
3	.008	.008	.010	.011	.012	.011	.010	.010		.007	.007	.005	.003	.007	.007	.008	.005	.003	.003	.007	.007	.010	.007	.008	.007 23
4	.010	.005	.003	.003	.007	.005	.005	.006		.007	.007	.008	.007	.007	.007	.007	.007	.007	.007	.007	.007	.003	.010	.007	.006 23
5	.008	.007	.007	.007	.007	.007	.007	.010		.015	.010	.007	.007	.007	.007	.007	.007	.007	.008	.007	.010	.011	.010	.011	.008 23
6	.010	.007	.007	.007	.007	.008	.008	.007	.007		.008	.007	.007	.007	.007	.007	.007	.007	.007	.008	.010	.011	.013	.013	.008 23
7	.008	.008	.008	.009	.009	.009	.009	.009	.009	.009	.003	.003	.002	.002				.002	.000	.002	.005	.009	.012	.014	.005 21
8	.012	.009	.009	.009	.009	.005	.009	.009	.009	.009		.002	.000	.000	.000	.000	.002	.003							.004 17
9			.006	.008	.009	.009	.014	.007	.005		.004	.002	.002	.002	.002	.002	.002	.002							.005 15
10	.001	.002	.003	.003	.003	.009	.007	.005	.005	.003	.002	.001	.002	.001	.001	.002	.004	.007			.008	.009	.009	.005	.004 23
11	.006	.007	.008	.008	.005	.005	.005	.005	.005		.004	.004	.004	.005	.005	.006	.006	.007	.010	.009	.008	.005	.005	.005	.006 23
12	.005	.005	.005	.004	.003	.004	.005	.005	.004		.005	.005	.004	.003	.002	.002	.002	.003	.002	.004	.007	.006	.005	.005	.004 23
13	.007	.005	.005	.005	.006	.007	.009	.009	.010	.009	.009	.005	.005	.005	.005	.005	.005	.005	.008	.005	.009	.010	.009	.009	.010 .007 24
14	.009	.007	.008	.007	.008	.005	.005	.005	.005	.005	.005	.005	.006	.005	.005	.005	.006	.004	.005	.004	.004	.003	.003	.004	.005 24
15	.003	.003	.004	.005	.005	.005	.007	.004	.005	.005	.005	.005	.004	.004	.004	.003	.003	.004	.004	.008	.007	.009	.007	.005	.005 24
16	.005	.004	.004	.005	.000	.001	.006	.007	.008	.005	.005	.002	.002	.002	.002	.002	.002			.005	.007	.002	.004	.002	.002 .004 22
17	.003	.004	.004	.004	.004	.005	.004	.004		.002	.002	.004	.004	.004	.003	.002	.002	.003	.003	.004	.003	.006	.007	.005	.004 23
18	.002	.002	.002	.002	.002	.004	.005	.005		.004	.003	.003	.002	.002	.002	.002	.004	.005	.002	.005	.005	.004	.003	.003	.005 .003 23
19	.005	.005	.005	.004	.003	.003	.005	.004		.007	.009	.006	.004	.005	.007	.005	.005	.009	.008	.006	.005	.005	.005	.005	.004 23
20	.002	.004	.005	.005	.005	.005	.005	.004		.002	.001	.002	.003	.005	.005	.004	.004	.003	.005	.006	.005	.009	.008	.007	.005 .005 23
21	.008	.005	.005	.004	.004	.004	.004	.003	.002	.001	.001	.001	.000	.000	.000	.000	.000	.001	.000	.004	.004	.003	.004	.004	.002 24
22	.004	.005	.004	.004	.004	.007	.007	.006	.005	.004	.004	.004	.006	.008	.005	.004	.004	.003	.006	.007	.004	.006	.007	.007	.005 24
23	.002	.002	.004	.002	.002	.001	.002	.007	.010		.007	.002	.003	.003	.002	.004	.001	.004	.009	.008	.006	.005	.004	.005	.004 23
24	.004	.004	.004	.004	.004	.004	.006	.005	.004		.003	.004		.005	.003	.003	.003	.004	.006	.009	.005	.005	.005	.005	.004 22
25	.005	.005	.005	.005	.005	.007	.008	.007	.005	.005	.004	.004	.004	.005	.003	.003	.003	.002	.002	.007	.005	.006	.006	.006	.005 24
26	.005	.005	.005	.006	.007	.006	.008	.009	.005	.004	.004	.003	.002	.002	.004	.004	.005	.005	.005	.008	.007	.005	.005	.005	.005 24
27	.004	.005	.004	.005	.007	.007	.007	.007	.005	.005	.005	.003	.004	.004	.003	.002	.004	.003	.005	.006	.007	.006	.006	.006	.005 24
28	.005	.005	.005	.005	.005	.004	.005	.002	.001	.001	.002	.001	.000	.001	.002	.002	.003	.003	.004	.002	.004	.002	.001	.001	.003 24
29	.001	.001	.001	.002	.002	.005	.004	.005	.004	.003	.002			.005	.002	.003	.001	.003	.003	.003	.004	.004	.005	.004	.003 22
30	.004	.004	.004	.004	.004	.005	.006	.007	.009	.009	.004	.002	.003	.004	.003				.004	.007	.009	.007	.006	.011	.006 21
31	.010	.008	.007	.006	.006	.007	.008	.006	.006	.004	.002			.002	.001	.002	.004	.004	.005	.006	.006	.006	.006	.006	.005 22
AVG	.006	.005	.005	.005	.005	.005	.006	.006	.005	.005	.004	.004	.003	.004	.003	.003	.004	.004	.005	.006	.006	.006	.006	.006	.005
NO.	30	30	31	31	31	31	31	31	22	25	30	29	28	31	30	29	28	29	28	29	29	29	29	29	700
MAX	.013	.020	.015	.011	.012	.011	.014	.010	.010	.015	.010	.008	.007	.008	.007	.007	.007	.009	.010	.009	.010	.011	.013	.014	.020

032026

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

NITROGEN DIOXIDE
#260214
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992405)

1-HOUR DATA LISTING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1	.004	.006	.006	.005	.005	.002	.004	.006	.005	.004	.006	.005	.009	.010	.009	.007	.006	.007	.006	.010	.011	.010	.020	.015	.007 24
2	.011	.011	.012	.011	.014	.011	.011	.011	.012	.009	.006	.006	.006	.007	.009	.009	.009	.009	.009	.007	.007	.011	.010	.010	.009 24
3	.010	.009	.009	.010	.009	.010	.010	.010	.011	.014	.010	.007	.006	.006	.007	.010	.014	.011	.011	.011	.012	.009	.011	.010	.010 24
4	.005	.006	.006	.005	.005	.007	.007	.009	.009	.011	.007	.006	.006	.006	.006	.006	.006	.007	.007	.006	.006	.006	.006	.006	.007 24
5	.006	.006	.006	.006	.006	.006	.006	.006	.006	.007	.009	.006	.006	.006	.009	.002	.008	.005	.009	.011	.006	.006	.006	.006	.006 24
6	.006	.006	.006	.006	.006	.006	.006	.010	.009	.006	.006	.006		.007	.004	.005	.006	.006	.006	.006	.007	.010	.006	.005	.006 23
7	.004	.004	.004	.006	.005	.004	.005	.006	.006	.004	.006		.006	.006	.006	.007	.006	.007	.006	.006	.006	.006	.006	.006	.005 23
8	.006	.006	.005	.005	.005	.006	.005	.006	.009	.012	.006	.006	.006	.006	.006	.006	.006	.007	.007	.006	.006	.009	.007	.011	.014 .007 24
9	.011	.006	.004	.005	.005	.004	.007	.005	.006	.006	.006	.006	.007	.006	.006	.006	.009	.006	.007	.006	.007	.010	.011	.011	.007 24
10	.010	.009				.006	.006	.006	.009	.006	.006	.006	.006	.005	.009	.004	.005	.006	.006	.006	.006	.006	.006	.007	.006 21
11	.009	.006	.006	.006	.006	.007	.007	.006	.007	.006	.006	.006	.009	.007	.006	.006	.006	.006	.006	.007	.009	.011	.007	.006	.007 24
12	.007	.007	.006	.006	.006	.006	.007	.010	.013	.007	.006	.005	.002	.003	.002	.002	.003	.003	.006	.005	.006	.005	.005	.005	.005 24
13	.004	.002	.001	.001	.001	.001	.001	.001	.001	.002	.002	.002	.002	.002	.001	.001	.002	.002	.002	.002	.004	.004	.002	.002	.005 .002 24
14	.004	.004	.005	.006	.006	.006	.006	.006	.006	.006	.006	.004	.004	.005	.005	.005	.005	.005	.006	.005	.004	.004	.004	.005	.005 .005 24
15	.003	.003	.002	.002	.002	.002	.002	.004	.004	.003	.003	.003	.003	.003	.003	.003	.003	.004	.006	.012	.008	.009	.008	.006	.004 24
16	.005	.006	.006	.006	.006	.004	.004	.005	.005	.005	.006	.006	.007	.007	.006	.006	.006	.006	.006	.009	.010	.010	.008	.007	.006 24
17	.008	.005	.005	.006	.006	.006	.005	.006	.006	.004	.002	.002	.002	.002	.002	.004	.002	.005	.005	.007	.007	.008	.010	.009	.005 24
18	.004	.005	.004	.005	.005	.005	.006	.005	.003	.003	.003	.002	.002		.002	.002	.002	.002	.001	.001	.001	.001	.001	.001	.001 .003 23
19	.001	.001	.001	.002	.002	.004	.002	.004	.002	.002	.002	.002	.001	.001		.001	.001	.002	.001	.002	.003	.002	.001	.002	.002 23
20	.002	.002	.002	.002	.005	.005	.009	.006	.006	.006	.007	.008	.007	.007	.005	.004	.002	.005	.008	.007	.005	.007	.008	.006	.005 24
21	.004	.003	.003	.002	.002	.002	.006	.005	.005	.006	.003	.002				.002	.002	.002	.005	.008	.004	.005	.005	.003	.004 21
22	.004	.007	.006	.004	.005		.006	.006	.005	.005	.005	.005	.005	.004	.003	.002	.002	.002	.004	.005	.006	.006	.005	.005	.005 23
23	.003	.002	.001	.001	.002	.003	.006	.006	.004	.002	.001	.001	.002	.002	.006	.005	.005	.004	.007	.008	.006	.004	.006	.005	.004 24
24	.004	.001	.001	.000	.000	.000	.000	.001	.001	.001	.001	.001	.001	.001	.001	.000	.000	.001	.003	.002	.001	.001	.002	.002	.001 24
25	.003	.003	.003	.001	.002	.003	.003	.002	.003	.002	.001	.001	.001	.001	.001	.001	.002	.001	.001	.001	.001	.001	.001	.002	.002 24
26	.001	.001	.001	.001	.002	.003	.004	.005	.004	.003	.004	.004	.001	.001	.002	.001	.001	.001	.002	.005	.006	.006	.006	.007	.003 24
27	.004	.001	.001	.001	.001	.001	.003	.002	.004	.001	.001		.005	.005	.005	.005	.004	.005	.007	.006	.006	.006	.006	.006	.004 23
28	.004	.006	.006	.006	.006	.006	.007	.007	.006	.006	.006	.006	.005	.005	.006	.006	.007	.008	.011	.007	.007	.006	.005	.005	.006 24
29	.004	.004	.004	.005	.006	.003	.006	.006	.006	.006	.006	.006	.006	.006	.006	.006	.005	.005	.006	.006	.006	.006	.006	.009	.006 .006 24
30	.006	.006	.006	.006	.006	.004	.005	.006	.010	.008	.004	.005		.004	.004	.004	.004	.009	.012	.010	.006	.007	.008	.005	.006 23
AVG	.005	.005	.004	.005	.005	.005	.005	.006	.006	.005	.005	.004	.005	.004	.005	.004	.005	.005	.006	.006	.006	.006	.007	.006	.005
NO.	30	30	29	29	29	29	30	30	30	30	30	28	27	28	28	30	30	30	30	30	30	30	30	30	707
MAX	.011	.011	.012	.011	.014	.011	.011	.011	.013	.016	.010	.008	.009	.010	.009	.010	.014	.011	.012	.012	.012	.011	.020	.015	.020

Reproduced from best available copy.

SECTION 4.5

METHANE

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION MIN DET: .1 SAROAD KEY: 37300099BA05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: JULY

SAMPLE DURATION: 01 HOURS SITE: TULSA - TULSA POST OFFICE YEAR: 1977

KEY-1: 37300099BA0177 KEY-2: 071400 KEY-3: 4320111072 AREA: 3000 SITE: 998 UNITS CODE: 07 DECIMAL CODE: 2

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15	1.96	2.11	1.99	1.94	1.89	1.82	1.85	2.14	2.08	1.98	1.81	1.77
16	1.86	1.63	1.81	1.87		2.10	2.00	1.89		1.89	1.81	1.74
17	2.10	1.99	2.02	1.91		1.87	1.86	2.14	2.16	2.00	1.93	1.85
18	2.16	2.19	2.34	2.36		2.18	2.07	1.96	1.89	1.78	1.80	1.80
19	1.92	2.21	2.25	2.21	2.16	2.12	2.17	2.03	1.98	1.85	1.80	1.80
20	1.75	1.78	1.79	1.79		1.71	1.79	2.14	2.09	1.92	1.87	1.82
21	1.77	1.87	1.90	1.90		1.97	1.87	1.77	1.84	1.88	1.83	1.77
22	2.26	2.45	2.65	2.40	2.35	2.17	2.02	1.89	1.86	1.82	1.77	1.76
23	1.96	1.86	1.81	2.19	3.19	3.05	2.95	1.92	1.81	1.75	1.77	1.72
24	1.80	1.99	2.11	2.10		2.27	2.16	2.16	1.78	1.77	1.82	1.83
25	1.90	1.92	1.95	1.95	1.95	2.01	1.95	2.10	1.96	1.90	1.89	1.85
26	1.82	1.82	1.78	1.83		1.92	1.83	2.00	1.97	1.90	1.78	1.74
27	1.79	1.88	1.92	1.97	2.02	2.08	1.93	1.77	1.75	1.84	2.03	2.56
28	1.76	1.80	1.81	1.81		1.85	1.84	1.95	1.93	1.87	1.90	1.87
29	1.91	1.91	1.93	1.98		2.51	2.13	1.84	1.89	1.95	1.90	1.85
30	1.68	1.90	2.08	2.17	2.14	2.04	2.08	2.18	2.29	2.18	2.06	1.98
31							2.32	2.05	2.00	1.92	1.87	1.81
								1.98	1.97	1.89	1.92	1.88
NO	16	16	16	16	7	16	17	18	17	18	18	18
MEAN	1.91	1.96	2.01	2.02	2.25	2.10	2.05	2.00	1.96	1.89	1.86	1.86
MAX	2.26	2.45	2.65	2.40	3.19	3.05	2.95	2.18	2.29	2.18	2.06	2.56

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14	1.73	1.70	1.72	1.70	1.69	1.70	1.72	1.74	1.74	1.68	1.84	1.83	0		
15	1.74	1.67	1.67	1.64	1.66	1.72	1.74	1.74	1.79	1.65	1.72	1.90	17	1.80	2.14
16	1.76	1.79	1.74	1.76	1.72	1.69	1.64	1.72	1.79	1.82	1.81	2.02	23	1.81	2.11
17	1.82	1.72	1.71	1.79	1.75	1.80	1.83	1.91	1.93	1.93	2.04	2.07	23	1.85	2.16
18	1.76	1.75	1.86	1.78	1.69	1.82	1.76	1.86	1.92	1.99	2.03	1.83	23	1.88	2.10
19	1.79	1.77	1.68	1.76	1.76	1.74	1.76	1.76	1.77	1.82	1.77	1.71	23	1.94	2.36
20	1.75	1.69	1.69	1.69	1.70	1.69	1.71	1.72	1.72	1.72	1.71	1.74	24	1.92	2.25
21	1.76	1.73	1.65	1.66	1.76	1.91	2.10	1.98	2.04	2.03	2.77	2.63	23	1.75	1.88
22	1.71	1.88	1.81	1.78	1.81	1.90	1.82	1.92	2.03	2.12	2.08	1.91	23	1.93	2.77
23	1.78	1.79	1.82	1.78	1.74	1.76	1.74	1.98	2.03	1.77	1.73	1.76	24	2.00	2.65
24	1.75	1.77	1.72	1.75	1.84	1.84	1.86	1.79	1.69	1.74	1.79	1.83	24	1.98	3.19
25	1.71	1.89	1.72	1.79	1.73	1.76	1.83	1.79	1.77	1.74	1.83	1.82	23	1.89	2.27
26	3.01	1.97	1.74	1.75	1.74	1.75	1.75	1.78	1.73	1.27	1.82	1.84	24	1.82	2.01
27	1.79	1.78	1.75	1.79	1.70	1.77	1.73	1.73	1.72	1.72	1.84	1.84	23	1.89	3.01
28	1.92	1.83	1.76	1.80		1.77	1.75	1.75	1.77	1.77	1.75	1.79	24	1.85	2.08
29	1.96	1.95	1.87	1.86	1.84	1.84	1.86	1.86	1.85	1.92	1.88	1.88	22	1.84	1.95
30	1.90	1.77	1.77	1.77	1.75	1.76	1.69	1.71	1.83	1.77	1.87	1.90	23	1.98	2.51
31	1.83	1.75	1.71	1.74	1.75	1.76	1.79	1.77	1.76	1.67	2.29	2.38	22	1.88	2.17
										1.78			18	1.90	2.38
NO	16	18	18	18	17	18	18	18	18	18	17	17	406		
MEAN	1.85	1.78	1.73	1.76	1.74	1.78	1.79	1.79	1.81	1.79	1.93	1.93		1.89	
MAX	3.01	1.97	1.87	1.86	1.84	1.91	2.10	1.98	2.04	2.12	2.77	2.63			3.19

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION MIN DET: .1 SAROAD KEY: 373000998A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA POST OFFICE YEAR: 1977

KEY-1: 373000998A05177 KEY-2: 000100 KEY-3: 4320111072 AREA: 3000 SITE: 998 UNITS CODE: 07 DECIMAL CODE: 2

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11
01	2.46	2.84	2.41	2.41	2.18	2.82	2.48	2.66	2.20	2.02	1.85	1.73
02	2.01	2.40	3.02	3.39		2.14	2.27	2.11	2.02	2.22	1.92	1.79
03	2.31	2.38	2.26	2.30		2.20	2.11	2.17	2.13	2.06	2.00	1.97
04						1.86	1.91		1.97	1.85	1.79	1.76
05									2.00	1.98	2.06	1.88
06	1.91	1.91	1.97	1.93	1.89	1.87	1.83	1.89		1.80	1.76	1.74
07	1.82	1.85	1.91	1.86	1.92	1.98	2.00	1.87	1.82	1.78	1.78	1.76
08	1.70	1.86	1.91	1.80	1.82	1.86	1.95	1.86	1.80	1.75	1.69	1.66
09	1.75	1.80	1.85	1.95	1.86	1.93	1.90	1.97	1.85	1.79	1.75	1.71
10	1.86	1.84	1.84	1.82	1.86		1.87	1.97	1.96	1.78	1.65	1.65
11	1.77	1.78	1.76	1.77	1.66	1.79	2.02	2.08	1.72	1.72	1.68	1.68
12	1.71	1.72	1.69	1.74	1.78	1.79	1.73	1.69	1.69	1.64	1.61	1.60
13	1.99	2.29	2.09	2.10		2.25	2.11	2.30	2.05	2.08	1.74	1.78
14	1.79	1.75	1.81	1.79	1.75	1.83	1.80	1.78	1.89	1.93	1.90	1.80
15	2.16	2.28	2.34	2.48		2.88	2.78	1.87	1.85	1.92	1.97	
16												
17												
18	2.17	2.16	2.19	2.16	2.18	2.38	2.40	1.89	1.94	2.00	1.90	1.90
19	2.07	1.85	1.83	1.87	2.39	1.93	1.90	2.28	2.06	1.75	1.71	1.70
20	1.76	1.79	1.79	1.82	1.87	2.48	2.10	1.98	1.87	1.89	1.90	1.91
21	2.13	2.74	2.20	2.55		2.58	3.23	1.99	2.06	2.05	2.00	1.96
22	2.69	3.21	3.15	3.60	4.40	3.91	4.10	2.15	2.11	1.89	1.90	1.80
23	1.88	1.97	1.74	1.81		1.77	1.84	3.31	3.02	2.35	1.95	1.94
24	2.27	3.49	2.33	2.15	2.22	2.12	2.11	1.99	2.08	2.02	1.91	1.82
25	1.84	1.87	1.90	1.90		1.88	1.92	2.09	2.03	1.97	1.88	1.77
26	1.96	1.96	2.11	2.05	2.06	1.95	1.93	2.05	1.82	1.90	1.87	1.83
27	2.06	1.90	2.01			1.98	2.07	2.24	2.10	2.17	2.07	2.03
NO	23	23	23	22	15	23	24	23	24	25	25	24
MEAN	2.00	2.16	2.09	2.15	2.13	2.18	2.18	2.06	2.00	1.93	1.85	1.80
MAX	2.69	3.49	3.15	3.60	4.40	3.91	4.10	3.31	3.02	2.35	2.07	2.03

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	1.70	1.68	1.66	1.66	1.67	1.65	1.67	1.68	1.74	1.77	1.81	2.29	24	2.04	2.84
02	1.75	1.70	1.71	1.73	1.70	1.74	1.75	1.77	1.78	1.83	2.11	2.23	23	2.05	3.39
03	1.93	1.94	1.87	1.81	1.76	1.76	1.74	1.72	1.72				20	2.01	2.38
04	1.73	1.72											8	1.83	1.97
05	1.91	1.86	1.87	1.89			1.80	1.84	1.88	1.81	1.82	1.97	14	1.90	2.06
06	1.65	1.67	1.71	1.73	1.75	1.73	1.78	1.73	1.72	1.74	1.76	1.82	23	1.80	1.97
07	1.73	1.75	1.69	1.67	1.67	1.71	1.69	1.73	1.76	1.69	1.61	1.68	24	1.78	2.00
08	1.65	1.63	1.68	1.59	1.63	1.66	1.71	1.73	1.70	1.63	1.60	1.74	24	1.73	1.95
09	1.68	1.67	1.65	1.70	1.72	1.70	1.75	1.80	1.73	1.86	1.97	1.95	24	1.80	1.97
10	1.70	1.69	1.85	1.92	1.81	1.69	1.99	2.08	1.98	1.85	1.74	1.77	23	1.83	2.08
11	1.67	1.68	1.66	1.68	1.70	1.73	1.75	1.74	1.78	1.78	1.78	1.78	24	1.76	2.08
12	1.57	1.58	1.63	1.57	1.58	1.71	1.67	1.70	1.67	1.78	2.01	2.08	24	1.70	2.08
13	1.83	1.82	1.80	1.79	1.77	1.72	1.72	1.74	1.78	1.77	1.73	1.74	23	1.90	2.29
14	1.81	1.71	1.78	1.69	1.67	1.65	1.81	1.71	1.60	1.60	1.64	1.91	24	1.77	1.93
15													10	2.25	2.88
16													9		
17	1.92	1.94	1.87	1.88	1.85	1.88	1.91	2.05	2.08	2.16	2.33	2.22	17	1.98	2.33
18	1.69	1.68	1.69	1.71	1.76	1.80	1.82	1.84	1.80	1.84	2.06	2.02	24	1.95	2.40
19	1.87	1.85	1.87	1.90	1.83	1.94	1.86	2.00	1.95	1.87	1.88	1.88	24	1.91	2.39
20	1.91	1.91	1.87	1.80	1.81	1.79	1.78	1.79	1.90	2.14	2.60	2.57	24	1.98	2.60
21	1.80	1.76	1.74	1.74	1.79	1.74	1.76	1.91	1.89	2.20	3.15	2.67	23	2.15	3.23
22	2.00	1.86	1.97	1.77	1.80	1.95	1.97	1.78	2.06	2.45	2.56	1.91	24	2.56	4.40
23	1.79	1.75	1.91	1.85	1.81	1.88	1.83	1.77	1.78	1.79	1.88	1.82	23	1.86	2.88
24	1.74	1.76	1.77	1.74	1.73	1.73	1.74	1.85	1.79	1.81	1.81	1.82	24	1.99	3.49
25	1.91	1.73	1.77	1.72	1.73	1.70	1.68	1.68	1.70	1.74	2.13	2.30	22	1.84	2.30
26	1.92	1.96	1.93	2.06	2.00	1.80	2.05	1.82	1.91	1.95	1.78	2.07	24	1.99	2.17
27													6	2.04	2.24
NO	24	24	23	23	22	22	23	23	23	22	22	22	547		
MEAN	1.79	1.76	1.78	1.77	1.75	1.76	1.79	1.80	1.81	1.86	1.99	2.01		1.93	
MAX	2.00	1.96	1.97	2.06	2.00	1.95	2.05	2.08	2.08	2.45	3.15	2.67			4.40

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION MIN DET: .1 SAROAD KEY: 37300099705

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: JULY

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373000997A05177 KEY-2: 072409 KEY-3: 4320111072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14													0		
15													0		
16													0		
17													0		
18													0		
19													0		
20													0		
21													0		
22													0		
23													0		
24													0		
25	1.80	1.80	1.73	1.75	1.89	2.00	2.02	2.04	2.03	1.96		1.88			
26													5	1.78	1.82
27								1.73	1.96	1.83	1.89	1.84	14	1.88	2.04
28	1.76	1.76	1.78	1.83	1.78	1.78	1.78	1.80	1.77	1.78	1.80	1.74	0		
29	1.73	1.80	1.81	1.93	1.97	2.10	2.05	1.93	1.99	1.92	2.14	2.36	17	1.75	1.96
30	1.86	1.88	1.88	1.91	1.99	1.98	1.97	1.89	1.88	1.82		1.74	24	1.78	1.91
31													24	1.89	2.14
													22	1.81	1.99
NO	4	4	4	4	4	4	4	5	5	5	3	5	1	1.75	1.75
MEAN	1.79	1.81	1.80	1.86	1.91	1.97	1.96	1.88	1.93	1.86	1.94	1.95	107		
MAX	1.86	1.88	1.88	1.93	1.99	2.10	2.05	2.04	2.03	1.96	2.14	2.36		1.82	
															2.14

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25	1.83	1.81	1.81					1.82	1.71	1.77	1.77	1.82
26												
27	1.86	1.77	1.59	1.65	1.68	1.77	1.75	1.77	1.76	1.69	1.73	1.76
28	1.65	1.81	1.73	1.75	1.75	1.77	1.76	1.83	1.86	1.71	1.91	1.85
29	1.97	1.99	1.88	1.80	1.94	1.72	1.67	1.76	1.89	1.62	1.76	1.84
30	1.75	1.71	1.70	1.70	1.71	1.71	1.79	1.77	1.80	1.72	1.72	
31												1.75
NO	5	5	5	4	4	4	4	5	5	5	5	5
MEAN	1.77	1.82	1.74	1.73	1.77	1.74	1.74	1.79	1.80	1.76	1.78	1.86
MAX	1.97	1.99	1.88	1.80	1.94	1.77	1.79	1.83	1.89	1.77	1.91	1.85

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION MIN DET: .1 SAROAD KEY: 373000997A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373000997A05177 KEY-2: 080100 KEY-3: 4320111072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	1.70	1.65										
02	1.85	1.86	2.07	2.35	2.65	2.09	2.23	2.14	2.15	2.09	1.95	1.90
03	1.81	1.90	2.22	2.25	2.62	1.92	1.92	1.88	1.92	1.88	1.85	1.76
04	2.22					1.65	1.94	1.78	1.79	1.81	1.72	1.84
05	1.93	1.94	1.87	1.88	1.78	1.81	2.07	2.06	1.99	1.99		1.93
06	1.96	1.94	2.03	1.98	2.06	2.00	1.98	1.93	1.92	1.92	1.92	1.92
07	1.70	1.74	1.73	1.72	1.73	1.73	1.73	1.73	1.77	1.78	1.76	1.78
08	1.73	1.73	1.73	1.73	1.73	1.74	1.77	1.78	1.78	1.73	1.78	1.72
09	1.81	1.85	1.89	1.86	1.82	1.87	1.91	1.83	1.98			1.75
10	1.66	1.73	1.74	1.74	1.69	1.69	1.75	1.88	1.99	2.04	1.92	1.88
11	2.13	2.10	2.00	2.05	2.09	2.19	2.27	2.40	1.99		1.95	2.01
12	2.11	1.96	2.05	2.02	2.00	2.10	2.02	2.10	2.12	2.10	2.05	2.00
13	2.00	2.11	2.09	2.18	2.16	2.11	2.11	2.01	1.92	1.95		1.93
14	1.89	1.94	1.99	2.09	2.10	1.98	2.08	2.03	1.92	1.89	1.89	1.87
15	1.87	1.82	2.03	2.13	2.12	2.23	2.09	2.04	2.01	1.89	1.80	
16	1.89	1.90	1.92	1.93	1.94	1.94	1.98	2.04	1.94	1.94	1.95	2.08
17	2.44	2.31	2.06	2.01	2.07	1.99	1.91	1.91	1.94	2.01		1.94
18	2.32	2.09	2.06	2.30	2.43	2.57	2.60	2.34	2.38	1.89	1.81	1.83
19	1.78	1.75	1.80	1.80	1.90	1.86	1.94	1.90	1.96	2.04	2.24	2.03
20						2.09	2.33	2.11	2.00	1.91	1.96	1.74
21	1.95	2.04	2.20	2.24	2.15	2.46	3.55	2.73	2.36	2.09	2.10	2.08
22	2.44	2.65	2.97	2.90	3.39	3.34	3.21	2.76				1.90
23	2.06	2.08										
24	2.19	2.78	2.94	2.58	2.40	2.50	2.65	2.35	2.32	2.20		2.03
25	2.09	2.05	2.01	2.03	1.98	1.99	2.11	2.06	1.96	1.96	1.99	1.94
26	1.92	2.01	1.97	1.97	1.97	2.00	2.04	2.05	1.97	1.88	1.87	1.87
27	1.85	1.85	1.85	1.87	1.85	1.88	1.88	1.88	1.86	1.84	1.82	2.04
28	1.89	1.87	1.85	1.87	1.85	1.82	1.84	1.85	1.77	1.88	1.88	1.95
29	1.90	1.89	1.95	1.86	1.97	2.08	2.12	2.13	1.97	2.03	2.00	2.02
30	1.92	1.96	2.00	1.95	1.91	1.85	1.91	1.84	1.76	1.73	1.72	1.68
31	1.80	1.83	1.83	1.80	1.84	1.75	1.77	1.81	1.75	1.75	1.71	1.90
NO	30	29	27	27	27	29	29	29	28	26	23	28
MEAN	1.96	1.98	2.03	2.04	2.06	2.05	2.13	2.05	1.97	1.93	1.99	1.89
MAX	2.44	2.78	2.97	2.90	3.39	3.34	3.55	2.76	2.38	2.20	2.24	2.08

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	1.64	1.86	1.64	1.65	1.66	1.76	1.77	1.75	1.85	1.85	1.85	1.88	14	1.75	1.88
02	1.85	1.85	1.85	1.78	1.75	1.76	1.81	1.73	1.82	1.85	1.86	1.79	24	1.96	2.65
03	1.82	1.75	1.65	1.73	1.80	1.77	1.80	1.74	2.16	2.30	2.34	2.40	24	1.95	2.40
04	1.73	1.73	1.80	1.81	1.85	1.86	1.82	1.85	1.75	1.85	1.85	1.91	20	1.84	2.22
05	1.95	1.92	1.95	2.00	1.92	1.90	1.94	1.94	1.98	1.95	1.81	1.91	23	1.93	2.07
06	1.93	1.91	1.92							1.71	1.73	1.76	18	1.92	2.06
07	1.77	1.77	1.75	1.66	1.73	1.73	1.73	1.73	1.73	1.73	1.76	1.74	24	1.78	1.78
08	1.71	1.70	1.68	1.65	1.68	1.67	1.72	1.73	1.75	1.77	1.79	1.86	24	1.74	1.86
09	1.86	1.75	1.69	1.76	1.73	1.82	1.83	1.84	1.89	1.88	1.89	1.81	22	1.83	1.98
10	1.77	1.85	2.03	2.07	1.82	1.82	1.82	1.86	1.83	1.68	1.94	2.04	24	1.85	2.07
11	2.05	1.96	1.97	1.99	2.05	2.11	2.08	2.06	2.03	2.05	2.06	2.09	23	2.07	2.40
12	1.99	1.90	1.91	1.94	1.95	2.00	2.09	2.08	1.98	1.98	2.00	1.94	24	2.02	2.12
13	2.01	1.97	1.94	1.97	1.88	1.86	1.87	1.84	1.91	1.89	1.95	2.00	23	1.99	2.18
14	1.88	1.86	1.85	1.88	1.86	1.86	1.84	1.98	1.87	1.88	1.80	1.83	24	1.92	2.10
15	1.84	1.83	1.79	1.65	1.83	1.89	1.90	1.88	1.85	1.92	1.88	1.93	23	1.93	2.23
16	1.89	1.86	1.85	1.91	1.91	1.97	1.82	1.89	2.00	2.13	2.09	2.30	24	1.96	2.30
17	2.00	2.02	1.91	1.93	1.90	1.85	1.95	1.97	2.13	2.19	2.20	2.34	23	2.04	2.44
18	1.83	1.88	1.88	1.86	1.88	1.93	1.94	1.88	1.88	1.94	1.88	1.89	24	2.05	2.60
19	2.13	1.98	2.00	2.03									16	1.95	2.24
20	1.77	1.88	1.88	1.86	1.90	1.95	1.94	2.11	2.04	2.03	1.96		18	1.97	2.33
21	2.03	1.93	1.90	1.81	1.84	1.84	1.91	1.96	2.04	2.15	2.13	2.24	20	2.16	3.55
22	1.94	2.03	1.94	1.91	1.83	1.89	1.84	1.86	1.85	1.87	1.94	2.06	21	2.31	3.39
23		2.02	1.96	1.96	1.99	1.97	2.05	1.99	2.67	2.11	2.15	2.14	13	2.04	2.15
24	2.00	2.00	1.97	2.00	2.02	2.00	2.00	2.01	2.01	2.02	2.03	2.00	23	2.22	2.94
25	1.87	1.90	1.91	1.86	1.89	1.89	1.97	1.94	2.00	1.99	1.95	1.90	24	1.97	2.11
26	1.83	1.79	1.87	1.88	1.88	1.89	1.88	1.87	1.87	1.84	1.86	1.85	24	1.91	2.05
27		1.81	1.84	1.85	1.91	1.89	1.91	1.80	1.99	1.97	1.98	1.87	23	1.88	2.04
28	2.08	2.05	2.12	2.09	2.00	2.04	2.06	2.19	1.99	2.06	2.03	1.91	24	1.96	2.19
29	2.02	2.09	2.03	2.00	2.03	1.94	2.18	2.33	2.31	2.20	2.24	1.78	24	2.05	2.33
30	1.68	1.68			1.87	1.71	1.66	1.66	1.66	1.67	1.72	1.77	22	1.78	2.00
31	1.64	1.66	1.68	1.59	1.58	1.57	1.58	1.61	1.66	1.66	1.75	1.85	24	1.71	1.85
NO	29	31	30	29	29	29	29	29	29	30	30	29	685		
MEAN	1.88	1.88	1.89	1.87	1.85	1.87	1.89	1.98	1.93	1.94	1.95	1.96		1.95	
MAX	2.13	2.09	2.12	2.09	2.05	2.11	2.18	2.33	2.31	2.30	2.34	2.40			3.55

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION MIN DET: .1 SAROAD KEY: 373000997A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373000997A05177 KEY-2: 090100 KEY-3: 4320111072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR											
DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	1.76	1.85	1.93	2.09	2.43	2.82	1.88	1.77	1.71			
02	1.76	1.82	1.91	1.90	1.90	2.00	2.08	1.98	1.76	1.72	1.76	1.76
03	1.93	1.96	2.38	2.21	2.96	2.64	2.10	1.86	1.79	1.79	1.73	1.76
04	1.90	1.97	2.05	2.11	1.97	1.79	1.92	1.77			1.80	1.79
05	2.13	1.96	1.89	1.96	1.83	1.80	1.83	1.99	1.99	1.83	1.82	1.76
06	2.33	2.03	2.14	2.16	2.01	1.92	2.08	2.04	1.90	1.80	1.77	1.76
07	1.73	1.99	2.40	2.61	2.46	2.51	2.64	2.09	2.02	1.72	1.67	1.65
08	2.39	2.64	2.50	2.53	3.18	3.40	3.17	2.39	1.84	1.70	1.69	1.64
09	1.77	1.79	1.90	1.94	1.97	1.99	1.94	2.02	1.86		1.86	1.69
10	2.15	2.10	2.34	2.13	2.04	2.61	1.93	1.89	1.76	1.79	1.77	1.76
11	1.87	1.84	1.82	1.82	1.86	1.91	1.82	1.77	1.87	1.83	1.82	1.77
12	1.87	1.90	1.93	1.76	1.94	1.91	1.87	1.91	1.82			1.76
13												
14												
15												
16	2.23	2.25	2.22	2.21	2.45	2.61	2.53	2.63	2.28	2.23	2.16	2.16
17	2.10	2.10	2.10	2.15	2.11	2.10	2.10	2.62	2.59	2.44	2.35	2.18
18	1.78	1.78	1.78	1.78	1.78	1.78	1.78	2.14	2.08	2.02	1.97	1.96
19	2.07	2.04	2.10	2.02	2.06	2.08	2.00	1.99	1.88	1.87	1.79	1.78
20	2.13	2.00	2.05	2.04	2.09	2.24	3.08	2.90	2.10	1.85	1.80	1.83
NO	17	17	17	17	17	17	17	18	17	14	16	16
MEAN	1.99	2.00	2.07	2.08	2.14	2.21	2.16	2.09	1.94	1.88	1.85	1.81
MAX	2.39	2.64	2.50	2.61	3.18	3.40	3.17	2.90	2.59	2.44	2.35	2.18

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	1.72	1.80	1.67	1.72	1.65	1.66	1.69	1.72	1.81	1.82	1.83	1.76	23	1.85	2.82
02	1.71	1.65	1.61	1.61	1.63	1.66	1.64	1.70	1.85	1.75	1.76	1.96	24	1.79	2.08
03	1.71	1.67	1.72	1.65	1.65	1.75	1.76	1.79	1.78	1.85	1.78	1.85	24	1.92	2.96
04	1.69	1.66	1.68	1.76	1.71	1.75	1.91	1.92	1.88	1.94	1.91	1.92	22	1.85	2.11
05	1.73	1.76	1.75	1.74	1.76	1.76	1.88	1.75	1.77	1.84	2.03	2.11	24	1.86	2.13
06	1.68	1.61	1.61	1.59	1.58	1.61	1.63	1.71	1.78	1.69	1.67	1.69	23	1.82	2.33
07	1.61	1.61	1.60	1.61	1.62	1.61	1.65	1.76	1.93	2.00	1.94	2.32	24	1.95	2.64
08	1.61	1.62	1.59	1.61	1.61	1.61	1.65	1.64	1.66	1.69	1.71	1.76	24	2.04	3.40
09	1.76	1.76	1.76	1.76	1.74	1.72	1.76	1.80	1.88	1.91	1.94	2.08	23	1.86	2.08
10	1.75	1.71	1.69	1.69	1.67	1.73	1.76	1.78	1.76	1.77	1.76	1.82	24	1.84	2.15
11	1.78	1.77	1.76	1.76	1.76	1.76	1.76	1.77	1.82	1.79	1.87	1.78	24	1.81	1.91
12													9	1.88	1.94
13													0		
14													0		
15	2.11	2.14	2.05	2.07	2.06	2.05	2.12	2.16	2.19	2.17	2.23	2.22	17	2.18	2.63
16	2.06	2.02	2.02	2.04	2.06	2.07	2.05	2.09	2.14	2.15	2.13	2.16	24	2.24	2.62
17	1.96	1.92	1.97	2.00	1.99	1.99	2.02	2.02	2.02	2.09	2.02	1.78	24	2.03	2.15
18	1.78	1.79	1.81	1.81	1.80	1.88	1.98	1.95	1.86	1.98	1.96	2.02	23	1.84	2.02
19	1.78	1.78	1.78	1.79	1.78	1.79	1.80	1.90	2.05	2.03	2.03	2.07	24	1.93	2.10
20	1.81	1.79	1.78	1.77	1.76	1.76	1.81	1.88	1.88	1.84	1.89		23	2.00	3.08
NO	17	17	17	17	17	17	17	17	17	17	17	16	483		
MEAN	1.78	1.77	1.76	1.76	1.75	1.77	1.82	1.80	1.89	1.90	1.91	1.96		1.92	
MAX	2.11	2.14	2.05	2.07	2.06	2.07	2.12	2.16	2.19	2.17	2.23	2.32			3.40

AIR QUALITY DATA REPORT

AGENCY: EPA = ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION MIN DET: .1 SAROAD KEY: 37226099 3A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - HYDRA YEAR: 1977

KEY-1: 37226099 3A05177 KEY-2: 082800 KEY-3: 4320111072 AREA: 2260 SITE: 993 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR														
DAY	00	01	02	03	04	05	06	07	08	09	10	11			
01															
02															
03															
04															
05															
06															
07															
08															
09															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29	1.70	1.71	1.70	1.73	1.72	1.72	1.73	1.75	1.76	1.79	1.83	1.82			
30	2.52	2.61	2.78	2.86	2.71	2.26	2.15	1.96	1.80	1.71	1.70	1.70			
31	2.11	2.09	1.76	1.71	1.78	1.78	1.77	1.78	1.75	1.72	1.72	1.70			
NO	3	3	3	3	3	3	3	3	3	3	3	3			
MEAN	2.11	2.14	2.08	2.10	2.07	1.92	1.88	1.83	1.77	1.74	1.75	1.74			
MAX	2.52	2.61	2.78	2.86	2.71	2.26	2.15	1.96	1.80	1.79	1.83	1.82			

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14													0		
15													0		
16													0		
17													0		
18													0		
19													0		
20													0		
21													0		
22													0		
23													0		
24													0		
25													0		
26													0		
27													0		
28												1.69	1	1.69	1.69
29		1.71	1.68	1.68	1.71	1.72	1.79	1.98	2.26	2.24	2.30	2.39	23	1.84	2.39
30		1.63	1.61	1.62	1.63	1.65	1.69	1.76	1.83	1.84	1.85	1.94	23	1.99	2.86
31	1.69	1.67	1.64	1.64	1.65	1.64	1.68	1.70	1.76	2.06	2.74	2.60	24	1.88	2.74
NO	1	3	3	3	3	3	3	3	3	3	3	4	71		
MEAN	1.69	1.67	1.64	1.65	1.66	1.66	1.72	1.81	1.95	2.05	2.30	2.16		1.89	
MAX	1.69	1.71	1.68	1.68	1.71	1.72	1.79	1.98	2.26	2.24	2.74	2.60			2.86

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: METHANE, CH4 UNITS: PARTS PER MILLION IN DET: .1 SAROAD KEY: 372260993A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - WYNONA YEAR: 1977

KEY-1: 372260993A05177 KEY-2: 096100 KEY-3: 4320111072 AREA: 2260 SITE: 993 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	3.02	2.91	2.60	2.35	1.70	1.70	1.74	1.72	1.71	1.70	1.70	1.70
02	2.37	2.42	2.61	2.97	2.94	3.05	2.72	2.22	2.08	1.95	1.78	1.74
03	2.51	3.41	3.28	3.51	3.22	4.34	5.57	2.76	2.06	2.16	1.95	1.79
04	2.76	2.78	2.87	3.01	3.47	3.16	3.52	2.80	2.04	1.94	1.82	1.92
05	1.87	1.79	1.76	1.79	1.85	1.84	1.84	1.86	1.79	1.79	1.77	1.72
06	2.26	2.25	2.54	2.38	2.31	2.31	2.13	2.04	1.87	1.80	1.72	1.69
07	2.28	2.32	2.23	2.16	2.40	2.67	2.56	2.16	1.96	1.90	1.82	1.73
08	3.18	3.05	5.23	4.17	3.46	3.97	3.96	3.12	2.08	2.18	1.87	1.72
09	1.93	2.14	2.23	2.80	2.21	3.03	2.76	2.46	2.04	2.02	1.84	1.70
10	1.79	1.81	1.80	1.80	1.83	1.85	1.87	1.87	1.87	1.82	1.71	1.70
11	1.94	2.02	2.03	2.08	1.89	1.97	2.08	2.15	2.01	1.89	1.87	1.85
12	1.87	1.85	1.82	1.83	1.77	1.79	1.79	1.80	1.82	1.80	1.79	1.72
13	1.64	1.73	1.81	1.83	1.90	2.00	2.04	1.76	1.84	1.84	1.72	1.69
14	1.75	1.77	1.77	1.76	1.74	1.75	1.77	1.77	1.78	1.78	1.77	1.78
15	1.82	1.80	1.80	1.82	1.83	1.82	1.84	1.96	1.91	1.94	1.85	1.81
16	1.91	1.99	2.03	2.27	2.10	2.24	2.15	1.94	1.78	1.85	1.87	1.89
17	1.80	1.78	1.74	1.71	1.70	1.71	1.74	1.78	1.78	1.76	1.74	1.74
18	1.74	1.83	1.81	1.73	1.75	1.73	1.77	1.75	1.77	1.74		1.73
19	1.74	1.76	1.76	1.82				1.87	1.88	1.76	1.85	1.75
20	3.50	3.37	3.05	2.96	3.63	3.78	4.30	3.34	2.21	1.92	1.79	1.81
21	1.82	1.80	1.80	1.79	1.79	1.80	1.80	1.81	1.79	1.77	1.74	1.73
22	1.84	1.85	1.84	1.97	1.97	2.04	2.06	2.07	1.87	1.86	1.86	1.80
23	1.88	1.91	1.90	1.91	1.88	1.88	1.90	1.88	1.87	1.86	1.82	1.79
NO	23	23	23	23	22	22	22	23	23	23	22	23
MEAN	2.13	2.19	2.27	2.25	2.24	2.38	2.45	2.13	1.90	1.87	1.80	1.76
MAX	3.50	3.41	5.23	4.17	3.63	4.34	5.57	3.34	2.21	2.18	1.95	1.92

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01		1.68	1.64	1.63	1.64	1.64	1.81	1.88	2.03	2.06	2.27	2.15	23	1.96	3.02
02	1.72	1.68	1.63	1.63	1.66	1.73	1.90	1.99	2.20	2.20	2.23	2.22	24	2.15	3.05
03	1.71	1.68	1.67	1.67	1.68	1.79	1.91	2.02	1.86	1.84	2.08	2.84	24	2.46	5.57
04		1.90	1.87	1.76	1.74	1.83	1.84	1.86	1.88	1.78	1.77	1.90	23	2.27	3.52
05	1.69	1.68	1.69	1.68	1.71	1.74	1.78	1.91	1.90	1.86	1.92	2.12	24	1.81	2.12
06	1.69	1.69	1.69	1.69	1.72	1.74	1.91	2.19	2.54	2.82	2.10	2.22	24	1.97	2.54
07	1.71	1.69	1.70	1.69	1.69	1.70	1.75	1.85	1.93	1.98	3.01	3.27	24	2.17	3.27
08	1.70	1.71	1.68	1.68	1.69	1.73	1.91	1.83	1.80	1.81	1.83	1.98	24	2.47	5.23
09	1.68		1.68	1.68	1.70	1.69	1.79	1.72	1.74	1.75	1.81	1.82	23	1.99	3.03
10	1.70	1.69	1.71	1.72	1.71	1.72	1.80	1.82	1.81	1.85	1.89	1.88	24	1.79	1.84
11	1.85			1.78	1.76	1.72	1.79	1.85	1.91	1.96	1.88	1.85	22	1.92	2.15
12	1.73	1.72	1.70	1.66	1.68	1.63	1.67	1.72	1.68	1.73	1.69	1.59	24	1.74	1.87
13	1.68	1.68	1.69	1.68	1.68	1.66	1.68	1.70	1.75	1.80	1.78	1.77	24	1.76	2.04
14	1.78	1.77	1.77	1.78	1.74	1.72	1.72	1.74	1.74	1.74	1.77	1.73	24	1.76	1.78
15	1.73	1.78	1.78	1.73	1.74	1.78	1.89	1.91	1.95	1.97	1.91	1.85	24	1.84	1.97
16	1.84	1.71	1.70	1.69	1.68	1.70	1.70	1.74	1.85	1.88	1.79	1.78	24	1.88	2.27
17	1.71	1.65			1.64	1.69	1.68	1.69	1.68		1.62	1.68	21	1.72	1.80
18	1.74	1.73	1.77									1.72	15	1.75	1.83
19	1.71	1.70	1.69	1.67	1.66	1.70	1.71	2.84	2.75	2.75	3.90	3.84	21	2.09	3.90
20	1.86	1.81	1.81	1.80	1.79	1.77	1.76	1.99	2.00	2.05	2.00	1.93	24	2.42	4.30
21	1.70	1.72	1.81	1.71	1.69	1.73	1.76	1.81	1.81	1.80	1.83	1.80	24	1.78	1.83
22		1.78	1.74	1.73	1.72	1.75	1.78	1.84	1.87	1.89	1.88	1.88	23	1.86	2.07
23	1.79												13	1.87	1.91
NO	20	20	20	20	21	21	21	21	21	20	21	22	520		
MEAN	1.74	1.72	1.72	1.70	1.70	1.72	1.78	1.90	1.94	1.98	2.05	2.08		1.98	
MAX	1.86	1.90	1.87	1.80	1.79	1.83	1.91	2.84	2.75	2.82	3.90	3.84			5.57

SECTION 4.6

TOTAL HYDROCARBONS

Preceding page blank

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION AIR QCD: 02 SAROAD KEY: 37300998A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: JULY

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA POST OFFICE YEAR: 1977

KEY-1: 373000998A05177 KEY-2: 071400 KEY-3: 4310111072 AREA: 3000 SITE: 998 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR														
DAY	00	01	02	03	04	05	06	07	08	09	10	11			
01															
02															
03															
04															
05															
06															
07															
08															
09															
10															
11															
12															
13															
14															
15	2.31	2.86	2.29	2.19	2.26	2.66	2.15	2.78	2.73	2.58	2.13	2.24			
16	2.19	1.90	1.98	2.19		2.51	2.37	2.46		2.55	2.18	2.29			
17	2.41	2.17	2.19	2.08		2.02	1.96	2.91	2.62	2.91	2.10	2.21			
18	2.57	2.48	2.89	2.84		2.74	2.76	2.11	2.17	1.95	2.02	1.93			
19	2.04	2.61	2.87	2.77	2.97	2.69	2.71	2.72	2.74	2.25	2.30	2.32			
20	1.84	1.86	1.90	1.90		1.86	2.84	2.77	2.84	2.55	2.51	2.26			
21	1.82	1.92	1.97	2.00		2.26	2.22	2.24	2.25	2.35	2.15	2.13			
22	2.60	2.83	2.98	2.65	2.80	2.41	2.38	2.32	2.05	2.41	2.09	2.12			
23	2.22	2.14	1.98	2.50	3.73	3.53	3.77	2.44	2.18	2.05	2.08	1.96			
24	1.88	2.10	2.30	2.23		2.63	2.67	2.72	2.09	2.17	2.03	2.35			
25	2.10	2.30	2.33	2.26	2.42	2.30	2.63	2.28	2.27	2.29	2.65	2.65			
26	1.88	1.96	1.88	1.94		2.18	2.43	3.64	2.99	2.50	2.16	2.07			
27	1.85	1.98	2.02	2.07	2.12	2.24	2.28	2.50	2.27	2.11	2.78	2.98			
28	1.91	1.84	1.88	1.89		2.14	2.35	2.13	2.22	2.10	2.16	2.14			
29	1.97	2.03	2.08	2.13		3.12	2.64	3.69	2.26	2.54	2.66	2.37			
30	2.03	2.10	2.55	2.77	2.64	2.58	2.77	2.55	1.54	3.47	2.55	2.71			
31							2.51	2.19	2.27	2.16	2.06	1.98			
									2.21	2.21	2.12	2.06			
NO	16	16	16	16	7	16	17	18	17	18	15	14			
MEAN	2.10	2.19	2.26	2.28	2.68	2.49	2.56	2.60	2.51	2.40	2.29	2.27			
MAX	2.60	2.86	2.98	2.84	3.73	3.53	3.77	3.69	4.54	3.47	2.78	2.98			

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14	2.08	2.16	2.15	2.04	2.00	1.91	1.97	1.97	1.95	2.09	2.10	2.11	17	2.18	2.78
15	2.01	2.36	2.54	2.32	2.02	1.96	2.11	2.16	2.22	1.94	1.93	2.22	23	2.26	2.86
16	2.16	2.19	2.15	1.96	2.00	1.91	1.92	1.95	1.92	2.01	1.97	2.29	23	2.19	2.93
17	1.97	1.86	1.78	1.86	1.96	1.96	1.98	2.16	2.46	2.31	2.40	2.49	23	2.10	2.49
18	2.00	2.07	2.00	2.03	1.94	2.03	2.02	2.19	2.47	2.56	2.57	2.02	23	2.37	2.89
19	2.16	2.00	2.11	2.06	2.02	1.92	1.98	1.91	1.90	1.93	1.84	1.82	24	2.30	2.97
20	2.30	2.82	2.05	2.03	2.26	2.06	1.92	1.87	2.08	2.23	1.85	1.92	23	2.12	2.84
21	2.28	2.13	2.08	1.95	2.12	3.14	3.13	5.38	2.78	2.53	3.62	3.20	23	2.50	5.38
22	1.95	2.24	2.07	2.00	2.38	3.38	2.12	2.14	2.22	2.34	2.44	2.18	24	2.36	5.38
23	1.95	2.32	2.53	2.10	1.85	1.93	1.89	1.98	1.92	1.90	1.85	1.89	24	2.32	3.77
24	2.03	2.14	1.95	2.30	2.58	2.37	2.15	2.03	1.91	1.89	1.95	1.93	23	2.22	2.67
25	2.00	1.95	2.13	2.36	2.04	2.09	2.59	1.94	1.91	1.94	1.90	1.90	24	2.27	3.64
26	3.49	2.70	5.08	3.32	2.39	1.89	1.84	1.84	1.79	1.78	1.93	1.95	23	2.38	5.08
27	2.07	2.18	2.03	2.18	2.20	2.00	1.99	1.98	1.94	1.96	2.02	1.89	24	2.08	2.29
28	2.32	2.50	2.37	2.14		2.63	2.02	2.04	2.27	2.43	2.11	2.01	22	2.22	2.64
29	2.45	2.31	2.19	2.25	2.12	2.15	2.19	2.33	2.28	2.01	2.06	2.03	23	2.49	4.54
30	1.95	2.02	2.02	2.02	1.96	1.93	1.93	1.90	1.86	1.70			22	2.17	2.77
31	2.07	1.88	1.83	1.81	1.79	1.87	1.85	1.83	1.86	2.11	2.60	2.75	18	2.09	2.75
NO	18	18	18	18	17	18	18	18	18	18	17	17	486		
MEAN	2.18	2.21	2.28	2.15	2.10	2.17	2.09	2.20	2.10	2.09	2.18	2.15		2.26	
MAX	3.49	2.82	5.08	3.32	2.58	3.38	3.13	5.38	2.78	2.56	3.62	3.20			5.38

Preceding page blank

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION MIN DET: .2 SAROAD KEY: 37300099805

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA POST OFFICE YEAR: 1977

KEY-1: 37300099805177 KEY-2: 080100 KEY-3: 4310111072 AREA: 3000 SITE: 998 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	2.72	3.07	2.56	2.56	2.92	3.77	3.57	3.55	2.75	4.55	2.21	2.15
02	2.67	2.88	5.25	4.98		2.82	3.32	3.72	2.98	2.99	2.52	2.11
03	2.92	3.40	2.76	7.90		2.75	2.97	3.47	2.51	2.55	2.49	3.11
04						2.26	2.29		2.83	2.34	2.42	2.13
05									2.44	2.58	2.52	2.36
06	2.17	2.36	2.27	2.17	2.04	2.12	2.10	2.12		1.91	1.91	1.85
07	2.22	2.02	2.26	2.21	2.31	2.39	2.54	2.07	1.98	1.94	2.05	1.95
08	1.79	2.09	2.41	2.17	2.20	2.39	2.68	2.40	2.20	2.05	2.45	2.63
09	1.86	1.90	2.03	2.34	2.76	2.53	2.66	2.67	2.24	2.20	2.20	2.76
10	2.14	2.01	2.12	2.06	2.27		2.56	2.89	3.07	2.38	2.09	2.06
11	2.15	2.10	1.99	1.93	2.20	2.18	2.47	2.65	1.96	1.89	1.96	1.92
12	1.91	1.83	1.74	1.86	1.95	2.03	2.03	2.12	2.03	1.93	1.83	1.74
13	2.54	3.02	2.80	2.86		2.62	3.37	2.41	2.38	2.62	2.08	2.15
14	2.07	2.02	2.10	2.05	1.96	2.12	2.13	2.15	2.21	2.28	2.16	2.12
15	2.61	2.62	2.68	3.30		3.51	3.77	3.08	2.92	2.66	2.50	
16												
17												
18	2.37	2.37	2.42	2.38	2.42	2.87	3.18	2.34	2.43	2.36	2.15	2.16
19	2.28	2.02	1.97	2.05	2.62	2.38	2.66	3.24	2.69	2.33	2.11	2.19
20	2.32	2.07	2.23	2.14	2.29	2.84	2.75	2.79	2.66	2.97	3.07	2.92
21	2.79	3.96	2.87	4.03		3.51	4.10	2.58	2.40	2.30	2.31	2.29
22	3.58	4.08	3.88	4.36	6.24	8.96	6.85	2.85	2.56	2.18	2.28	1.96
23	2.26	2.27	1.97	2.06		2.18	3.11	4.54	5.02	3.63	2.47	2.26
24	2.82	4.26	2.58	2.34	2.53	2.47	2.65	2.48	2.46	2.77	2.23	2.29
25	2.14	2.12	2.08	2.11		2.78	2.26	2.62	2.53	2.39	2.24	2.24
26	2.40	2.46	2.30	2.38	2.39	2.26	2.19	2.77	2.24	2.27	2.26	2.21
27	2.09	2.12	2.24			2.27	2.25	2.36	2.66	2.62	2.37	2.46
NO	23	23	23	22	15	23	24	23	24	25	25	24
MEAN	2.38	2.57	2.50	2.83	2.61	2.87	2.94	2.78	2.60	2.51	2.27	2.25
MAX	3.58	4.26	5.25	7.90	6.24	8.96	6.85	4.54	5.02	4.55	3.07	3.11

HOUR

DAY	12	13	14	15		17	18	19	20	21	22	23	NO.	MEAN	MAX
01	2.19	2.07	2.14	2.12	2.19	1.86	1.90	1.99	2.07	2.18	2.13	2.65	24	2.58	4.55
02	2.09	2.17	2.09	2.20	2.22	2.07	1.97	2.35	2.80	2.26	3.02	3.11	23	2.81	5.25
03	2.76	2.36	2.26	2.16	2.67	2.00	2.11	2.00	2.08				20	2.83	7.90
04	2.10	2.11											8	2.31	2.83
05	2.33	2.16	2.32	2.38			2.09	2.15	2.12	1.91	1.89	2.23	14	2.25	2.58
06	1.74	1.87	1.81	1.84	1.87	1.92	1.90	2.02	1.87	1.90	2.02	2.22	23	2.00	2.36
07	1.93	1.84	1.82	1.79	1.85	1.90	1.95	1.99	1.83	1.74	1.64	1.76	24	2.00	2.56
08	1.99	1.92	1.94	1.90	1.85	1.83	1.94	1.99	1.92	1.75	1.71	1.84	24	2.09	2.68
09	2.15	2.15	2.20	2.11	2.11	1.97	2.52	2.82	2.23	2.61	2.63	2.54	24	2.34	2.82
10	2.49	2.61	2.77	2.73	2.45	2.15	2.47	2.61	2.50	2.36	2.06	2.01	23	2.39	3.07
11	2.00	1.96	1.91	1.95	1.98	1.88	1.97	1.95	2.01	2.04	1.94	1.93	24	2.04	2.65
12	1.79	1.80	2.10	1.82	1.94	2.07	1.94	2.15	2.18	2.21	2.63	2.98	24	2.03	2.98
13	2.25	2.40	2.24	2.18	2.12	2.08	2.02	2.03	2.04	2.03	2.07	2.05	23	2.37	3.37
14	2.14	2.09	2.07	1.98	1.96	1.86	2.39	1.90	1.68	1.79	1.89	2.03	24	2.05	2.39
15													10	2.97	3.77
16													0		
17	2.21	2.23	2.10	2.31	2.07	2.04	2.06	2.39	2.33	2.43	2.69	2.89	17	2.28	2.69
18	2.16	1.97	2.07	2.37	2.04	2.09	2.15	2.15	2.17	2.28	2.39	2.26	24	2.36	3.24
19	2.97	4.32	3.30	2.65	2.48	2.30	2.17	2.62	2.72	2.58	2.36	2.31	24	2.63	4.32
20	2.19	2.44	2.30	2.38	2.12	2.11	2.15	2.26	2.31	2.79	3.58	3.58	24	2.45	3.58
21	1.96	1.92	1.89	1.86	1.90	1.89	1.99	2.43	2.89	3.39	6.20	3.59	23	2.82	6.20
22	2.44	2.52	2.81	2.48	2.27	2.28	2.31	2.23	2.33	3.34	3.28	2.32	24	3.60	8.96
23	2.22	2.30	2.72	2.76	2.27	2.30	2.21	2.11	2.17	2.27	2.43	2.22	23	2.35	3.11
24	2.16	2.06	2.22	2.02	2.09	1.95	1.97	2.13	2.02	2.09	2.05	2.16	24	2.36	4.26
25	2.47	2.27	2.20	2.13	2.06	1.95	1.89	1.97	1.99	2.11	2.28	2.51	22	2.20	2.78
26	2.22	2.44	2.45	2.60	2.43	2.04	2.29	2.11	2.15	2.12	2.19	2.31	24	2.36	2.77
27													6	2.22	2.36
NO	24	24	23	23	22	22	23	23	23	22	22	22	547		
MEAN	2.21	2.25	2.25	2.21	2.11	2.02	2.11	2.19	2.19	2.28	2.50	2.41		2.41	
MAX	2.97	4.32	3.30	2.76	2.48	2.30	2.52	2.82	2.80	3.39	6.20	3.59			8.96

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION MIN DET: .2 BAROAD KEY: 373000997A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: JULY

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373000997A05177 KEY-2: 072460 KEY-3: 4310111072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25	1.80	1.80	1.73	1.75	1.89	2.02	2.06	2.14	2.31	2.48		2.08
26												
27												
28	1.84	1.84	1.88	1.85	1.85	1.92	1.93	1.97	2.11	1.97	2.03	1.91
29	1.82	1.93	1.89	1.96	2.12	2.41	2.34	1.99	1.93	2.06	1.98	1.86
30	1.89	1.91	1.90	1.91	1.99	1.98	1.97	2.35	2.26	2.48	2.69	2.30
31								1.90	1.91	1.89		1.74
NO	4	4	4	4	4	4	4	5	5	5	3	5
MEAN	1.84	1.87	1.85	1.87	1.96	2.08	2.08	2.07	2.10	2.17	2.23	1.98
MAX	1.89	1.93	1.90	1.96	2.12	2.41	2.34	2.35	2.31	2.48	2.69	2.30

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14													0		
15													0		
16													0		
17													0		
18													0		
19													0		
20													0		
21													0		
22													0		
23													0		
24													0		
25	2.31	2.02	2.27					1.85	1.71	1.77	1.77	1.82	5	1.78	1.85
26													14	2.04	2.44
27	1.88	2.04	1.83	2.23	2.55	2.18	1.96	1.98	1.95	1.90	1.90	1.82	0		
28	1.97	1.99	2.15	2.00	1.83	1.91	1.94	2.16	2.29	1.93	2.24	1.94	17	2.01	2.55
29	2.16	2.09	2.17	2.09	2.11	2.00	2.26	2.14	2.11	1.91	1.88	2.01	24	1.97	2.29
30	1.75	1.78	1.79	1.98	2.18	2.40	2.97	2.97	2.92	1.75	1.78		24	2.15	2.69
31												1.83	22	2.06	2.97
NO	5	5	5	4	4	4	4	5	5	5	5	5	1	1.83	1.83
MEAN	2.01	1.98	2.04	2.08	2.17	2.12	2.28	2.22	2.20	1.85	1.91	1.88	107		
MAX	2.31	2.09	2.27	2.23	2.55	2.40	2.97	2.97	2.92	1.93	2.24	2.01		2.03	2.97

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION MIN DET: .2 BASIC KEY: 373000997

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1

KEY-1: 373000997405177 KEY-2: 000100 KEY-3: 4310111072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR											
DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	1.77	1.74				2.70	3.04	3.15	3.05	2.75	2.38	2.26
02	2.35	2.17	2.78	3.19	3.82	1.97	1.97	2.01	1.96	1.98	1.83	2.79
03	1.93	2.03	2.44	2.41	2.12	2.28	2.45	2.69	2.44	2.30	2.09	1.84
04	2.42					1.98	2.33	2.34	2.19	2.10		2.18
05	2.10	2.12	2.13	1.96	1.94	2.13	2.12	2.11	2.09	2.09	1.91	2.16
06	2.11	2.10	2.13	2.13	2.13	1.77	1.77	1.79	1.82	1.83	1.83	2.03
07	1.79	1.80	1.79	1.87	1.84	1.83	1.92	2.05	1.99	1.86	1.83	1.84
08	1.77	1.77	1.77	1.77	1.77	1.98	2.03	1.99	2.07			1.82
09	1.86	1.93	1.98	1.94	1.90	1.87	1.94	2.18	2.25	2.26	2.40	1.85
10	1.73	1.85	1.88	1.88	1.83	2.19	2.04	2.04	2.20		2.05	2.12
11	2.29	2.30	2.10	2.41	2.19	2.40	2.04	2.19	2.12	2.13	2.10	2.12
12	2.11	1.99	2.05	2.02	2.00	2.11	2.11	2.02	1.92	1.97		2.00
13	2.06	2.18	2.11	2.24	2.15	2.12	2.11	2.03	1.92	1.89	1.89	2.13
14	2.04	1.94	2.01	2.13	2.10	1.96	2.06	2.19	2.09	1.95	1.80	1.87
15	1.87	1.82	2.03	2.15	2.05	2.41	2.34	2.14	2.14	2.14	2.06	
16	1.89	1.90	1.92	1.93	1.94	1.94	1.99	2.00	2.21	2.15		2.09
17	2.57	2.30	2.09	2.01	2.07	2.18	2.07	2.83	2.54	1.99	1.85	1.95
18	2.41	2.41	2.10	2.37	2.47	2.72	3.05	2.14	1.97	2.12	2.24	1.83
19	1.78	1.75	1.80	1.80	1.90	1.86	2.12	2.24	2.00	1.91	1.97	2.16
20						2.12	2.48	2.89	2.59	2.09	2.15	1.74
21	1.95	2.04	2.21	2.24	2.34	2.47	3.55	3.60				2.09
22	2.94	3.18	3.23	3.65	4.02	3.99	4.08					1.98
23	2.08	2.06										
24	2.22	2.78	2.94	2.54	2.40	2.52	2.72	2.48	2.48	2.32		2.03
25	2.09	2.05	2.01	2.03	1.98	1.99	2.11	2.00	1.96	1.96	1.99	1.94
26	1.92	2.01	1.97	1.97	1.97	2.00	2.04	2.13	1.97	1.88	1.87	1.87
27	1.85	1.85	1.85	1.87	1.85	1.86	1.88	1.88	1.88	1.86	1.84	1.82
28	1.89	1.87	1.85	1.87	1.85	1.82	1.84	1.85	1.77	1.88	1.88	1.95
29	1.90	1.89	1.95	1.88	1.97	2.09	2.26	2.20	1.97	2.07	2.00	2.02
30	2.08	2.04	2.09	2.03	2.99	1.93	2.15	2.19	1.92	1.83	1.81	1.88
31	1.86	1.87	1.87	1.86	1.90	1.82	1.90	2.01	1.78	1.81	1.81	1.72
NO	30	29	27	27	27	29	29	29	28	26	23	29
MEAN	2.06	2.06	2.11	2.15	2.22	2.17	2.31	2.27	2.12	2.04	1.98	1.99
MAX	2.94	3.18	3.23	3.65	4.02	3.99	4.08	3.60	3.05	2.75	2.40	2.79

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	1.97	2.04	1.99	1.99	2.18	2.27	2.45	2.71	2.73	2.74	2.81	2.55	15	2.27	2.81
02	2.35	2.35	2.33	2.25	2.26	2.25	2.28	2.38	2.46	2.39	2.40	1.79	24	2.57	3.82
03	1.83	1.75	1.97	1.96	1.80	1.82	1.96	2.02	2.31	2.52	2.63	2.44	24	2.06	2.63
04	2.11	2.12	2.20	2.20	2.26	2.45	2.21	2.30	2.24	2.28	2.38	2.10	20	2.28	2.69
05	2.12	2.17	2.12	2.15	2.44	2.13	2.16	2.18	2.27	2.26	2.12	2.07	23	2.15	2.44
06	2.03	2.02	2.10							2.13	1.77	1.80	18	2.05	2.13
07	1.77	1.77	1.79	1.69	1.77	1.77	1.77	1.82	1.83	1.82	1.80	1.78	24	1.80	1.87
08	1.87	1.79	1.81	1.78	1.78	1.77	1.82	1.93	1.88	1.89	1.86	1.90	24	1.84	2.05
09	1.97	1.87	1.83	2.02	1.88	1.93	1.93	2.00	2.08	1.94	1.92	1.90	22	1.95	2.08
10	2.05	2.11	2.17	2.32	2.20	1.94	2.06	2.01	2.00	2.00	2.11	2.16	24	2.06	2.80
11	2.12	2.00	1.98	2.05	2.16	2.17	2.18	2.17	2.12	2.05	2.07	2.09	23	2.20	2.64
12	2.08	2.05	2.17	2.16	2.18	2.23	2.19	2.32	2.16	1.99	2.10	2.02	24	2.11	2.32
13	2.15	2.29	2.37	2.05	1.94	1.99	1.96	2.06	2.06	1.95	1.97	2.08	23	2.08	2.37
14	1.84	1.88	1.94	2.19	2.64	1.90	1.97	2.04	1.87	1.90	1.80	1.83	24	1.99	2.68
15	1.90	1.83	1.79	1.98	1.86	2.05	2.87	3.06	2.66	2.19	1.88	2.80	23	2.14	3.06
16	1.99	1.98	2.15	2.25	2.24	2.30	2.00	2.28	2.16	2.47	2.14	2.42	24	2.10	2.47
17	2.05	2.03	1.95	2.01	1.93	1.85	2.01	2.10	2.36	2.47	2.43	2.49	23	2.14	2.57
18	1.83	1.89	1.91	1.88	2.01	2.30	2.31	2.25	2.14	2.01	2.04	1.89	24	2.21	3.05
19	2.12	2.13	2.11	2.06									16	2.06	2.24
20	1.77	1.90	1.88	2.07	2.45	4.11	3.14	3.32	4.27	2.71	1.96	1.95	19	2.42	4.27
21	2.11	1.94	1.90	1.81	1.91	1.84	1.96	2.35	2.27	2.42	2.28	2.39	24	2.24	3.55
22	2.03	2.03	1.98	1.93	1.83	1.97	1.97	2.06	1.94	1.89	2.05	2.31	21	2.60	4.08
23		2.03	1.96	1.96	2.61	2.05	2.36	2.09	2.20	2.31	2.15	2.16	13	2.11	2.36
24	2.00	2.01	1.97	2.20	2.26	2.10	2.13	2.17	2.09	2.06	2.11	2.08	23	2.28	2.94
25	1.87	1.90	1.91	1.86	1.89	1.89	1.97	1.95	2.00	1.99	1.95	1.98	24	1.97	2.11
26	1.83	1.79	1.87	1.90	1.89	1.89	1.88	1.87	1.87	1.84	1.86	1.85	24	1.91	2.13
27	2.04		1.81	1.84	1.85	2.05	2.19	2.46	2.64	2.48	2.58	1.87	23	2.01	2.64
28	2.08	2.19	2.16	2.09	2.03	2.07	2.08	2.19	1.99	2.06	2.03	1.91	24	1.97	2.19
29	2.10	2.09	2.11	2.17	2.30	2.16	2.36	2.92	2.80	2.60	2.48	1.99	24	2.18	2.92
30	1.79	1.77			1.80	1.82	1.82	1.84	1.78	1.79	1.80	1.80	22	1.94	2.99
31	1.70	1.78	1.76	1.79	1.74	1.80	1.96	1.79	1.79	1.81	2.01	2.12	24	1.84	2.12
NO	30	30	30	29	29	29	29	29	29	30	30	30	687		
MEAN	1.98	1.98	2.00	2.02	2.05	2.10	2.14	2.23	2.24	2.17	2.11	2.05		2.11	
MAX	2.35	2.35	2.37	2.32	2.68	4.11	3.14	3.32	4.27	2.74	2.81	2.55			4.27

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION MIN DET: .2 SAROAD KEY: 373000997A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: SEPTEMBER

SAMPLE TIME: 24 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373000997A05177 KEY-2: 000100 KEY-3: 4310111072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	1.84	1.97	2.08	2.37	2.76	3.11	2.06	2.09	1.88			
02	1.96	1.97	2.10	2.09	2.04	2.19	2.59	2.54	2.02	1.86	1.82	1.83
03	2.24	2.30	2.57	2.90	3.53	3.03	2.36	2.18	1.92	2.05	1.95	1.90
04	2.59	2.34	2.44	2.47	2.16	1.95	1.97	1.92			2.03	1.92
05	2.21	2.03	1.96	1.96	1.86	1.89	2.01	2.06	2.08	1.95	1.94	1.89
06	2.07	2.16	2.29	2.25	2.16	2.16	2.55	2.58	2.30	2.05	1.94	1.87
07	2.01	2.20	2.59	2.76	2.61	2.82	3.14	2.62	2.41	1.98		1.80
08	3.10	3.45	3.14	3.05	3.94	4.04	4.01	3.24	2.25	1.87	1.87	1.87
09	1.84	1.96	2.06	2.14	2.23	2.21	2.28	2.75	2.64		1.81	1.82
10	2.36	2.25	2.25	2.29	2.27	2.25	2.20	2.17	2.18	2.27	3.09	2.33
11	2.17	2.07	2.02	2.06	2.01	2.04	1.98	1.95	2.08	2.06	2.11	2.12
12	2.02	2.06	2.06	2.06	2.05	2.05	2.01	2.25	2.08		1.96	1.94
13												
14												
15												
16	2.26	2.25	2.22	2.21	2.57	2.95	3.15	2.86	2.83	2.57	2.50	2.32
17	2.10	2.10	2.10	2.15	2.11	2.10	2.10	3.60	3.44	2.83	2.54	2.20
18	1.78	1.78	1.78	1.78	1.78	1.78	1.78	2.16	2.06	2.03	1.97	1.96
19	2.07	2.11	2.27	2.09	2.17	2.18	2.16	1.78	1.78	1.79	1.82	
20	2.40	2.20	2.27	2.04	2.34	2.59	5.10	2.10	1.96	1.95	1.89	1.88
								4.09	2.62	2.01	1.95	1.94
NO	17	17	17	17	17	17	17	18	17	14	16	16
MEAN	2.20	2.19	2.25	2.27	2.39	2.43	2.56	2.50	2.27	2.09	2.07	1.97
MAX	3.10	3.45	3.14	3.05	3.94	4.04	5.10	4.09	3.44	2.83	3.09	2.33

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	1.85	1.84	1.80	1.80	1.77	1.87	1.80	2.23	2.33	2.10	2.02	1.90	23	2.05	3.11
02	1.88	1.78	1.75	1.73	1.81	1.89	2.07	2.33	2.56	2.22	2.28	2.61	24	2.08	2.61
03	1.85	1.89	2.06	2.18	2.34	3.65	3.48	2.78	3.72	4.24	2.58	3.89	24	2.65	4.24
04	1.80	1.85	1.85	1.98	1.85	1.93	2.09	2.11	2.05	2.18	2.08	2.07	22	2.06	2.50
05	1.86	1.84	1.91	1.84	1.90	1.97	2.19	1.98	2.15	2.13	2.21	2.30	24	2.00	2.30
06	1.83	1.84	1.81	1.85	1.87	1.86	1.95	2.26	2.33	1.99	1.87	1.90	23	2.09	2.58
07	1.84	1.87	1.83	1.88	1.92	1.88	2.12	2.48	2.69	2.78	2.55	3.01	24	2.32	3.14
08	1.89	1.84	1.79	1.83	1.81	1.84	1.95	1.86	1.83	1.86	1.87	1.89	24	2.42	4.04
09	2.06	1.98	1.99	1.96	1.67	1.92	2.02	2.06	2.14	2.20	2.19	2.36	23	2.19	3.09
10	1.99	1.93	1.88	1.95	1.97	2.07	2.09	2.19	2.08	2.25	2.12	2.12	24	2.14	2.32
11	2.04	2.05	1.98	1.93	1.93	1.89	1.94	2.01	1.99	1.95	1.95	1.98	24	2.00	2.17
12													9	2.07	2.25
13													0		
14													0		
15	2.32	2.57	2.10	2.18	2.16	2.20	2.44	2.37	2.31	2.30	2.23	2.22	17	2.38	2.86
16	2.09	2.38	2.07	2.10	2.16	2.18	2.23	2.24	2.17	2.17	2.13	2.16	24	2.42	3.80
17	1.96	1.92	1.97	2.08	2.57	2.87	2.93	3.15	2.76	3.40	2.02	1.78	24	2.27	3.40
18	1.78	1.79	1.84	1.88	1.89	2.09	2.32	2.09	2.02	2.15	2.09	2.14	23	1.90	2.32
19	1.86	1.87	1.94	1.98	1.93	2.18	2.23	2.51	2.85	2.57	2.57	2.52	24	2.16	2.85
20	1.97	1.96	1.94	1.93	1.94	1.94	2.16	2.06	1.97	1.94	1.96		23	2.32	5.10
NO	17	17	17	17	17	17	17	17	17	17	17	16	403		
MEAN	1.94	1.94	1.91	1.94	1.98	2.13	2.24	2.28	2.35	2.38	2.16	2.30		2.20	
MAX	2.32	2.57	2.10	2.18	2.57	3.65	3.48	3.15	3.72	4.24	2.58	3.89			5.10

AIR QUALITY DATA REPORT

AGENCY: EPA = ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION PCT DEC: .2 SAROAD KEY: 37226099340S

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA = AVALON YEAR: 1977

KEY-1: 3722609934051?7 KEY-2: 082800 KEY-3: 4310111072 AREA: 2260 SITE: 993 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR														
DAY	00	01	02	03	04	05	06	07	08	09	10	11			
01															
02															
03															
04															
05															
06															
07															
08															
09															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29	1.82	1.83	1.83	1.80	1.84	1.85	1.88	1.89	1.90	1.92	1.98	1.99			
30	3.07	3.26	3.19	3.36	3.75	2.84	2.52	2.15	1.94	1.85	1.83	1.82			
31	2.57	2.43	1.90	1.86	1.95	1.94	1.95	1.96	1.92	1.87	1.90	1.85			
NO	3	3	3	3	3	3	3	3	3	3	3	3			
MEAN	2.49	2.51	2.31	2.36	2.51	2.21	2.12	2.00	1.92	1.88	1.90	1.89			
MAX	3.07	3.26	3.19	3.36	3.75	2.84	2.52	2.15	1.94	1.92	1.98	1.99			

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14													0		
15													0		
16													0		
17													0		
18													0		
19													0		
20													0		
21													0		
22													0		
23													0		
24													0		
25													0		
26													0		
27													0		
28													0		
29		1.82	1.77	1.77	1.80	1.83	2.05	2.58	2.89	2.77	2.88	1.82	1	1.82	1.82
30		1.77	1.74	1.73	1.74	1.75	1.93	2.07	2.25	2.08	2.13	2.02	23	2.07	2.89
31	1.84	1.81	1.78	1.79	1.77	1.75	1.80	1.94	1.92	2.59	5.09	3.32	23	2.33	3.75
												2.89	24	2.14	5.09
NO	1	3	3	3	3	3	3	3	3	3	3	4	71		
MEAN	1.84	1.80	1.76	1.76	1.77	1.78	1.93	2.16	2.35	2.48	3.37	2.71		2.18	
MAX	1.84	1.82	1.78	1.79	1.80	1.83	2.05	2.58	2.89	2.77	5.09	3.32			5.09

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: TOTAL HYDROCARBON, THC UNITS: PARTS PER MILLION TIV DET: .2 SAROAD KEY: 37226099340

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - MAYUNA YEAR: 197

KEY-1: 372260993405177 KEY-2: 390100 KEY-3: 4310111072 AREA: 2260 SITE: 993 UNITS CODE: 07 DECIMAL CODE:

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11
01	3.61	3.66	3.28	2.66	1.79	1.80	1.88	1.85	1.82	1.80	1.82	1.80
02	3.23	3.17	3.38	4.34	4.13	4.52	3.76	2.90	2.39	2.24	1.96	1.93
03	2.79	4.18	4.33	4.50	4.52	6.14	7.78	3.63	2.36	2.52	2.20	1.97
04	4.31	3.89	3.48	3.96	4.46	4.44	5.22	3.83	2.26	2.12	2.00	2.11
05	2.03	1.95	2.12	1.96	2.00	1.97	1.98	2.03	1.93	1.92	1.91	1.85
06	2.60	2.64	3.30	2.96	2.81	2.88	2.46	2.25	2.03	1.96	1.87	1.80
07	2.65	2.68	2.54	2.47	2.99	3.53	3.36	2.54	2.17	2.10	1.99	1.99
08	4.28	4.05	6.99	5.87	4.82	5.60	6.10	4.63	2.45	2.60	2.15	1.89
09	2.25	2.75	2.75	3.23	2.73	4.31	3.53	3.12	2.43	2.31	2.12	1.85
10	1.95	1.98	1.98	1.98	2.00	2.03	2.09	2.05	2.37	1.98	1.85	1.84
11	2.17	2.25	2.28	2.02	2.15	2.23	2.38	2.45	2.17	2.05	2.03	2.07
12	1.99	1.99	1.97	1.97	1.93	1.93	1.93	1.96	2.01	1.99	1.97	1.97
13	1.80	1.93	2.15	2.08	2.23	2.29	2.48	2.01	2.11	2.18	1.94	1.86
14	1.90	1.91	1.90	1.96	1.90	1.88	1.90	1.94	1.92	1.98	1.99	1.95
15	2.00	2.00	2.00	2.01	2.00	2.00	2.00	2.39	2.10	2.10	2.07	2.01
16	2.15	2.31	2.37	2.83	2.51	2.77	2.69	2.25	1.96	2.07	2.09	2.14
17	1.95	1.92	1.86	1.84	1.81	1.84	1.90	1.94	1.95	1.93	1.88	1.88
18	1.88	2.00	2.03	1.83	1.95	1.86	2.01	1.97	1.97	1.95		1.93
19	2.02	2.08	1.99	1.78				2.09	2.08	2.03	1.95	1.98
20	5.15	4.17	4.21	4.08	4.96	5.44	5.71	4.29	2.62	2.32	2.12	2.11
21	2.18	2.03	1.99	1.98	2.02	2.06	2.08	2.06	2.03	1.98	1.96	1.96
22	2.13	2.15	2.15	2.00	2.39	2.52	2.49	2.39	2.18	2.11	2.09	2.01
23	2.14	2.14	2.18	2.20	2.15	2.34	2.23	2.16	2.19	2.16	2.11	2.18
NO	23	23	23	23	22	22	22	23	23	23	22	23
MEAN	2.57	2.60	2.76	2.77	2.74	3.02	3.09	2.55	2.14	2.10	2.00	1.96
MAX	5.15	4.18	6.99	5.87	4.96	6.14	7.78	4.63	2.62	2.60	2.20	2.18

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01		1.81	1.77	1.73	1.74	1.76	2.09	2.16	2.44	2.65	3.09	2.66	23	2.25	3.61
02	1.86	1.79	1.75	1.72	1.78	1.87	2.28	2.50	2.61	2.64	2.78	2.79	24	2.68	4.52
03	1.66	1.84	1.83	1.80	1.81	1.96	2.16	2.34	2.07	2.06	2.66	4.32	24	3.07	7.78
04		2.22	2.14	1.99	1.91	2.01	2.03	1.99	2.02	2.08	1.90	2.07	23	2.81	5.22
05	1.82	1.80	1.80	1.80	1.82	1.92	2.00	2.23	2.10	2.04	2.15	2.39	24	1.98	2.39
06	1.80	1.80	1.81	1.81	1.82	1.87	2.06	2.06	2.18	2.19	2.41	2.61	24	2.25	3.30
07	1.83	1.83	1.81	1.80	1.84	1.90	2.12	2.37	3.36	3.78	3.96	4.35	24	2.59	4.35
08	1.88	1.85	1.82	1.82	1.83	1.95	2.05	2.24	2.07	2.00	2.13	2.43	24	3.15	6.99
09	1.83		1.84	1.84	1.85	1.84	1.85	1.87	1.89	1.91	2.01	1.99	23	2.35	4.31
10	1.84	1.82	1.85	1.86	1.84	1.93	2.03	2.04	2.04	2.05	2.12	2.15	24	1.97	2.15
11	2.22			1.97	1.91	1.88	1.94	2.17	2.26	2.32	2.10	1.97	22	2.16	2.62
12	1.87	1.88	1.93	1.78	1.79	1.77	1.78	1.94	1.85	2.04	1.90	1.72	24	1.91	2.04
13	1.81	1.81	1.82	1.82	1.80	1.78	1.82	1.85	1.88	1.97	1.95	1.91	24	1.97	2.48
14	1.96	1.95	1.91	1.97	1.90	1.91	1.96	1.89	1.96	1.86	1.90	1.86	24	1.92	1.99
15	1.94	1.98	1.97	1.90	1.92	1.95	2.17	2.25	2.25	2.29	2.19	2.02	24	2.06	2.39
16	2.01	1.85	1.82	1.80	1.78	1.83	1.82	1.88	2.13	2.14	1.96	1.94	24	2.13	2.83
17	1.84	1.79			1.75	1.80	1.79	1.80	1.79		1.74	1.81	21	1.85	1.98
18	1.97	1.92	1.98									1.94	15	1.95	2.03
19	1.95	2.04	2.05	1.95	1.93	2.06	2.23	4.77	4.17	3.81	4.69	4.84	21	2.58	4.84
20	2.23	2.12	2.15	2.14	2.07	1.99	2.07	2.31	2.52	2.64	2.24	2.37	24	3.08	5.71
21	1.94	1.93	1.93	1.89	1.90	1.97	2.10	2.16	2.08	2.03	2.10	2.05	24	2.02	4.18
22		2.01	1.97	1.92	1.92	2.10	2.02	2.19	2.23	2.29	2.28	2.18	23	2.19	2.69
23													12	2.18	2.36
NO	19	20	20	20	21	21	21	21	21	20	21	22	519		
MEAN	1.92	1.90	1.89	1.87	1.85	1.91	2.02	2.25	2.28	2.32	2.39	2.47		2.32	
MAX	2.23	2.22	2.15	2.14	2.07	2.10	2.28	4.77	4.17	3.78	4.69	4.84			7.78

SECTION 4.7

NONMETHANE HYDROCARBONS

Preceding page blank

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBON UNITS: PARTS PER MILLION MIN DET: .2 SAROAD KEY: 37300099RA05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: JULY

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA POST OFFICE YEAR: 1977

KEY-1: 37300J998405177 KEY-2: 071400 KEY-3: 4310211072 AREA: 3000 SITE: 998 UNITS CODE: 07 DECIMAL CODE: 2

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15	0.35	0.75	0.30	0.25	0.37	0.84	0.30	0.64	0.65	0.60	0.50	0.47
16	0.33	0.27	0.17	0.32		0.41	0.37	0.57		0.66	0.37	0.55
17	0.31	0.18	0.17	0.19		0.15	0.10	0.77	0.46	0.93	0.36	0.36
18	0.43	0.29	0.55	0.48		0.56	0.69	0.15	0.28	0.17	0.22	0.13
19	0.12	0.40	0.62	0.56	0.81	0.57	0.54	0.69	0.76	0.40	0.50	0.52
20	0.09	0.08	0.21	0.21		0.15	1.05	0.63	0.75	0.63	0.64	0.44
21	0.05	0.05	0.07	0.10		0.29	0.35	0.47	0.41	0.47	0.32	0.36
22	0.34	0.38	0.33	0.25	0.25	0.24	0.26	0.43	0.19	0.59	0.32	0.36
23	0.26	0.28	0.17	0.31	0.54	0.48	0.82	0.52	0.37	0.30	0.27	0.24
24	0.08	0.11	0.19	0.13		0.36	0.51	0.56	0.31	0.40	0.61	0.62
25	0.20	0.38	0.38	0.31	0.44	0.29	0.68	0.18	0.31	0.38	0.76	0.80
26	0.06	0.04	0.10	0.11		0.26	0.65	1.64	1.02	0.60	0.38	0.33
27	0.06	0.10	0.10	0.10	0.10	0.16	0.35	0.73	0.52	0.27	0.75	0.62
28	0.15	0.04	0.07	0.08		0.29	0.51	0.34	0.19	0.23	0.24	0.27
29	0.06	0.12	0.15	0.15		0.61	0.51	0.29	0.37	0.59	0.74	0.52
30	0.15	0.20	0.47	0.60	0.50	0.44	0.69	0.51	2.25	1.29	0.49	0.73
31							0.19	0.50	0.27	0.24	0.19	0.17
NO	16	16	16	16	7	16	17	0.21	0.34	0.32	0.20	0.18
MEAN	0.19	0.23	0.25	0.26	0.43	0.38	0.50	19	17	18	18	18
MAX	0.43	0.75	0.62	0.60	0.81	0.84	1.05	0.55	0.56	0.50	0.44	0.42
								1.64	2.25	1.29	0.76	0.88

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14	0.35	0.36	0.43	0.34	0.31	0.21	0.25	0.23	0.21	0.41	0.26	0.28	0		
15	0.27	0.69	0.87	0.68	0.36	0.24	0.37	0.48	0.43	0.29	0.21	0.32	17	0.38	0.65
16	0.40	0.40	0.41	0.20	0.28	0.22	0.24	0.23	0.13	0.19	0.16	0.27	23	0.46	0.87
17	0.15	0.14	0.07	0.07	0.21	0.16	0.15	0.25	0.53	0.38	0.36	0.42	23	0.34	0.93
18	0.24	0.32	0.34	0.25	0.25	0.21	0.26	0.33	0.55	0.57	0.54	0.19	23	0.21	0.53
19	0.37	0.23	0.43	0.32	0.26	0.18	0.22	0.15	0.13	0.11	0.07	0.11	23	0.43	0.76
20	0.55	1.13	0.36	0.34	0.56	0.37	0.21	0.15	0.36	0.51	0.14	0.18	24	0.39	0.81
21	0.52	0.40	0.43	0.29	0.34	1.13	1.03	3.40	0.74	0.50	0.85	0.57	23	0.38	1.13
22	0.24	0.36	0.26	0.22	0.57	1.48	0.30	0.22	0.19	0.22	0.36	0.27	23	0.57	3.40
23	0.17	0.53	0.71	0.32	0.11	0.17	0.15	0.25	0.23	0.13	0.12	0.13	24	0.35	1.48
24	0.28	0.37	0.23	0.55	0.74	0.53	0.29	0.24	0.14	0.15	0.16	0.10	24	0.35	0.82
25	0.29	0.26	0.41	0.57	0.31	0.33	0.76	0.16	0.18	0.17	0.07	0.08	23	0.33	0.80
26	0.48	0.73	3.34	1.57	0.65	0.14	0.09	0.11	0.07	0.06	0.09	0.11	24	0.43	1.64
27	0.28	0.40	0.28	0.39	0.50	0.23	0.22	0.23	0.17	0.19	0.27	0.10	23	0.49	3.34
28	0.40	0.77	0.61	0.34		0.86	0.27	0.26	0.42	0.51	0.23	0.13	24	0.23	0.50
29	0.49	0.36	0.32	0.39	0.28	0.31	0.33	0.49	0.45	0.24	0.19	0.13	22	0.38	0.86
30	0.15	0.25	0.25	0.25	0.21	0.17	0.24	0.19	0.15	0.03			23	0.47	2.25
31	0.24	0.13	0.12	0.07	0.04	0.11	0.06	0.06	0.10	0.33	0.31	0.37	22	0.29	0.69
NO	19	18	18	18	17	16	18	18	18	18	17	17	806	0.19	0.37
MEAN	0.33	0.44	0.55	0.40	0.35	0.39	0.30	0.41	0.29	0.28	0.26	0.22		0.37	
MAX	0.55	1.13	3.34	1.57	0.74	1.48	1.03	3.40	0.74	0.57	0.85	0.57			3.40

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBONS UNITS: PARTS PER MILLION VIN DET: .2 SAROAD KEY: 37300399840S

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA POST OFFICE YEAR: 1977

KEY-1: 373003998405177 KEY-2: 050100 KEY-3: 4310211072 AREA: 3800 SITE: 998 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	0.20	0.23	0.15	0.15	0.70	0.95	1.09	0.89	0.55	2.53	0.26	0.42
02	0.66	0.48	2.23	1.59		0.68	1.05	1.61	0.92	0.77	0.60	0.32
03	0.61	1.12	0.50	0.60		0.55	0.86	1.30	0.38	0.69	0.69	1.14
04						0.38	0.38		0.86	0.49	0.65	0.37
05									0.44	0.60	0.46	0.48
06	0.26	0.45	0.30	0.24	0.15	0.25	0.27	0.23		0.11	0.15	0.11
07	0.40	0.17	0.35	0.35	0.39	0.41	0.54	0.20	0.16	0.16	0.27	0.19
08	0.39	0.23	0.50	0.37	0.38	0.53	0.73	0.54	0.40	0.30	0.76	0.97
09	0.11	0.10	0.18	0.39	0.92	0.80	0.76	0.70	0.39	0.41	0.45	1.05
10	0.28	0.17	0.28	0.24	0.41		0.69	0.92	1.11	0.60	0.44	0.41
11	0.38	0.32	0.23	0.16	0.39	0.39	0.45	0.57	2.24	0.17	0.26	0.24
12	0.20	0.11	0.05	0.12	0.17	0.24	0.30	0.43	0.34	0.29	0.22	0.14
13	0.55	0.73	0.71	0.78		0.37	0.20	0.41	0.53	0.54	0.34	0.37
14	0.28	0.25	0.29	0.20	0.21	0.29	0.33	0.37	0.32	0.35	0.26	0.32
15	0.45	0.34	0.34	0.92		0.03	0.99	1.21	1.07	0.74	0.53	
16												
17												
18	0.20	0.21	0.23	0.22	0.24	0.49	0.78	0.45	0.49	0.36	0.25	0.26
19	0.21	0.17	0.14	0.18	0.23	0.45	0.76	0.96	0.63	0.58	0.40	0.49
20	0.56	0.28	0.44	0.32	0.42	0.36	0.65	0.91	0.79	1.08	1.17	1.01
21	0.66	1.22	0.67	1.48		0.93	0.87	0.59	0.34	0.25	0.31	0.33
22	0.89	0.87	0.73	0.76	1.84	5.05	2.75	0.70	2.45	0.29	0.38	0.16
23	0.38	0.30	0.23	0.25		0.41	1.27	1.53	2.00	1.28	0.52	0.32
24	0.55	0.77	0.25	0.19	0.31	0.35	0.54	0.49	0.38	0.75	0.32	0.47
25	0.30	0.25	0.18	0.21		0.90	0.34	0.53	0.50	0.42	0.36	0.47
26	0.44	0.48	0.19	0.33	0.33	0.31	0.26	0.72	0.42	0.37	0.39	0.34
27	0.03	0.22	0.23			0.29	0.18	0.12	0.56	0.45	0.30	0.43
NO	23	23	23	22	15	23	24	23	24	25	25	24
MEAN	0.38	0.41	0.41	0.46	0.67	0.69	0.71	0.71	0.59	0.58	0.42	0.45
MAX	0.89	1.22	2.23	1.59	1.84	5.05	2.75	1.61	2.70	2.53	1.17	1.14

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	0.49	0.39	0.48	0.46	0.52	0.21	0.33	0.30	0.33	0.41	0.32	0.36	24	0.53	2.53
02	0.34	0.47	0.38	0.47	0.52	0.33	0.22	0.58	1.02	0.43	0.91	0.88	23	0.76	2.23
03	0.83	0.42	0.39	0.37	0.31	0.24	0.37	0.28	0.26				20	0.58	1.30
04	0.37	0.39											0	0.48	0.86
05	0.42	0.30	0.45	0.49									14	0.35	0.60
06	0.09	0.20	0.10	0.11	0.12	0.19	0.29	0.31	0.24	0.10	0.07	0.26	23	0.21	0.45
07	0.20	0.09	0.13	0.12	0.18	0.19	0.21	0.29	0.15	0.16	0.26	0.40	24	0.22	0.54
08	0.34	0.29	0.26	0.31	0.22	0.17	0.26	0.26	0.17	0.05	0.03	0.08	24	0.35	0.97
09	0.47	0.48	0.55	0.41	0.39	0.27	0.23	0.26	0.22	0.12	0.11	0.10	24	0.54	1.05
10	0.79	0.92	0.92	0.81	0.64	0.46	0.77	1.02	0.50	0.75	0.66	0.59	24	0.55	1.11
11	0.33	0.29	0.25	0.27	0.28	0.15	0.48	0.53	0.52	0.51	0.32	0.24	23	0.27	0.57
12	0.22	0.22	0.47	0.23	0.36	0.36	0.22	0.21	0.23	0.26	0.16	0.15	24	0.32	0.80
13	0.32	0.58	0.44	0.39	0.35	0.36	0.27	0.45	0.51	0.57	0.64	0.88	24	0.42	0.78
14	0.33	0.28	0.29	0.29	0.29	0.21	0.58	0.19	0.08	0.19	0.25	0.22	24	0.28	0.58
15													10	0.71	1.21
16													0		
17	0.29	0.29	0.23	0.43	0.22	0.16	0.15	0.34	0.25	0.27	0.36	0.27	17	0.30	0.69
18	0.47	0.29	0.38	0.66	0.28	0.29	0.33	0.31	0.37	0.44	0.33	0.24	24	0.41	0.96
19	1.10	2.47	1.43	0.75	0.65	0.36	0.31	0.62	0.77	0.63	0.56	0.51	24	0.72	2.47
20	0.26	0.53	0.43	0.58	0.31	0.32	0.37	0.47	0.41	0.65	0.98	1.01	24	0.47	1.01
21	0.16	0.16	0.15	0.12	0.11	0.15	0.23	0.52	0.80	1.19	3.05	0.92	23	0.67	3.05
22	0.44	0.66	0.84	0.71	0.47	0.33	0.34	0.45	0.27	0.89	0.72	0.41	24	1.04	5.05
23	0.43	0.55	0.81	0.91	0.46	0.42	0.38	0.34	0.39	0.48	0.55	0.40	23	0.49	1.27
24	0.42	0.30	0.45	0.28	0.36	0.22	0.23	0.28	0.23	0.28	0.24	0.34	24	0.37	0.77
25	0.56	0.54	0.43	0.41	0.33	0.25	0.21	0.29	0.29	0.37	0.15	0.21	22	0.35	0.90
26	0.30	0.48	0.52	0.54	0.43	0.24	0.14	0.29	0.24	0.17	0.41	0.28	24	0.37	0.72
27													6	0.18	0.29
NO	24	24	23	23	22	22	23	23	23	22	22	22	547		
MEAN	0.42	0.48	0.47	0.44	0.35	0.27	0.31	0.39	0.37	0.42	0.51	0.41		0.46	
MAX	1.10	2.47	1.43	0.91	0.65	0.46	0.77	1.02	1.02	1.19	3.05	1.01			5.05

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBON UNITS: PARTS PER MILLION PIN DET: .2 SAROAD KEY: 37300099 7A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: JULY

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 37300099 7A05177 KEY-2: 072400 KEY-3: 4310211072 AREA: 3000 SITE: 999 UNITS CODE: 07 DECIMAL CODE: 2

DAY	HOUR 00	01	02	03	04	05	06	07	08	09	10	11	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14													0		
15													0		
16													0		
17													0		
18													0		
19													0		
20													0		
21													0		
22													0		
23													0		
24													0		
25	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.10	0.28	0.48		0.20	5	0.01	0.03
26													14	0.16	0.48
27	0.08	0.08	0.10	0.02	0.07	0.14	0.15	0.24	0.15	0.14	0.14	0.07	0		
28	0.09	0.13	0.08	0.03	0.15	0.31	0.29	0.19	0.16	0.28	0.18	0.12	17	0.26	0.87
29	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.42	0.27	0.56	0.55	0.24	24	0.19	0.43
30								0.01	0.03	0.07		0.00	24	0.25	0.59
31													22	0.24	1.20
													1	0.08	0.08
NO	4	4	4	4	4	4	4	5	5	5	3	5	107		
MEAN	0.05	0.06	0.05	0.01	0.06	0.12	0.12	0.19	0.18	0.31	0.29	0.13		0.21	
MAX	0.09	0.13	0.10	0.03	0.15	0.31	0.29	0.42	0.28	0.56	0.55	0.24			1.20

DAY	HOUR 12	13	14	15	16	17	18	19	20	21	22	23
01												
02												
03												
04												
05												
06												
07												
08												
09												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25	0.48	0.21	0.46					0.03	0.00	0.00	0.00	0.00
26												
27	0.22	0.27	0.24	0.58	0.87	0.41	0.21	0.21	0.19	0.21	0.17	0.06
28	0.32	0.18	0.42	0.25	0.08	0.14	0.18	0.33	0.43	0.22	0.33	0.09
29	0.19	0.10	0.29	0.14	0.17	0.28	0.59	0.38	0.22	0.29	0.12	0.17
30	0.00	0.07	0.09	0.28	0.47	0.69	1.16	1.20	1.12	0.03	0.06	
31												0.08
NO	5	5	5	4	4	4	4	5	5	5	5	5
MEAN	0.24	0.17	0.30	0.33	0.40	0.38	0.54	0.43	0.39	0.15	0.14	0.08
MAX	0.48	0.27	0.46	0.58	0.87	0.69	1.16	1.20	1.12	0.29	0.33	0.17

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBON UNITS: PARTS PER MILLION MIN DET: .2 BARJAO KEY: 373000997A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373006997A05177 KEY-2: 080100 KEY-3: 4310211072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	0.07	0.09										
02	0.50	0.31	0.71	0.83	1.17	0.61	0.79	1.01	0.90	0.66	0.43	0.89
03	0.12	0.13	0.22	0.16	0.10	0.05	0.05	0.13	0.04	0.10	0.00	0.08
04	0.20					0.43	0.51	0.91	0.65	0.49	0.37	0.44
05	0.17	0.18	0.16	0.08	0.16	0.17	0.26	0.28	0.20	0.11		0.23
06	0.15	0.16	0.10	0.15	0.17	0.13	0.14	0.18	0.17	0.17	0.00	0.11
07	0.09	0.06	0.06	0.15	0.11	0.04	0.04	0.06	0.05	0.05	0.07	0.06
08	0.04	0.04	0.04	0.04	0.04	0.09	0.15	0.27	0.21	0.13	0.05	0.10
09	0.07	0.08	0.09	0.06	0.08	0.11	0.12	0.16	0.09			0.10
10	0.07	0.12	0.14	0.14	0.14	0.18	0.19	0.30	0.26	0.12	0.48	0.24
11	0.16	0.20	0.10	0.36	0.10	0.21	0.37	0.24	0.21		0.10	0.11
12	0.00	0.03	0.00	0.00	0.00	0.01	0.09	0.09	0.00	0.03	0.05	0.00
13	0.08	0.07	0.02	0.06	0.01	0.01	0.00	0.01	0.00	0.02		0.20
14	0.15	0.00	0.02	0.04	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
15	0.00	0.00	0.00	0.02	0.33	0.18	0.25	0.15	0.08	0.06	0.00	
16	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.10	0.26	0.20	0.11	0.01
17	0.13	0.00	0.03	0.00	0.00	0.19	0.16	0.09	0.27	0.14		0.01
18	0.09	0.32	0.04	0.07	0.04	0.15	0.45	0.49	0.16	0.10	0.04	0.00
19	0.00	0.00	0.00	0.00	0.00	0.06	0.08	0.24	0.03	0.08	0.00	0.13
20						0.03	0.14	0.13	0.00	0.00	0.01	0.00
21	0.00	0.00	0.01	0.00	0.19	0.01	0.00	0.16	0.23	0.00	0.05	0.00
22	0.50	0.53	0.26	0.75	0.63	0.65	0.87	0.84				0.01
23	0.02	0.00										0.08
24	0.03	0.00	0.00	0.00	0.00	0.00	0.07	0.13	0.16	0.12		0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	0.14	0.08	0.09	0.08	0.06	0.08	0.24	0.26	0.16	0.10	0.09	0.12
31	0.06	0.04	0.04	0.06	0.06	0.07	0.13	0.20	0.03	0.06	0.10	0.12
NO	30	29	27	27	27	29	29	29	28	26	23	28
MEAN	0.10	0.08	0.08	0.11	0.13	0.12	0.18	0.23	0.15	0.11	0.08	0.11
MAX	0.50	0.53	0.71	0.83	1.17	0.65	0.87	1.01	0.90	0.66	0.48	0.89

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	0.42	0.11	0.40	0.34	0.33	0.42	0.50	0.70	0.86	0.89	0.96	0.67	14	0.48	0.96
02	0.50	0.50	0.48	0.47	0.51	0.49	0.47	0.65	0.54	0.54	0.56	0.00	24	0.61	1.17
03	0.01	0.00	0.12	0.23	0.00	0.05	0.16	0.28	0.15	0.22	0.29	0.04	24	0.11	0.29
04	0.38	0.39	0.40	0.39	0.43	0.59	0.39	0.45	0.49	0.43	0.45	0.19	20	0.45	0.91
05	0.17	0.25	0.17	0.15	0.52	0.23	0.22	0.24	0.29	0.31	0.31	0.16	21	0.22	0.52
06	0.10	0.11	0.18							0.42	0.04	0.04	18	0.14	0.42
07	0.00	0.00	0.04	0.03	0.04	0.04	0.04	0.09	0.10	0.09	0.04	0.04	24	0.06	0.15
08	0.16	0.09	0.13	0.13	0.10	0.10	0.10	0.20	0.13	0.12	0.07	0.04	24	0.11	0.27
09	0.09	0.12	0.14	0.26	0.15	0.11	0.11	0.16	0.19	0.06	0.03	0.09	22	0.11	0.26
10	0.28	0.26	0.14	0.25	0.38	0.12	0.24	0.15	0.17	0.12	0.17	0.12	24	0.20	0.48
11	0.07	0.04	0.01	0.06	0.11	0.06	0.10	0.11	0.09	0.00	0.01	0.00	23	0.12	0.37
12	0.09	0.15	0.26	0.22	0.23	0.23	0.10	0.24	0.18	0.01	0.10	0.08	24	0.09	0.26
13	0.14	0.32	0.43	0.08	0.06	0.13	0.09	0.18	0.15	0.06	0.02	0.08	23	0.10	0.43
14	0.00	0.02	0.09	0.31	0.82	0.04	0.13	0.06	0.00	0.02	0.00	0.00	24	0.07	0.82
15	0.06	0.00	0.00	0.13	0.03	0.16	0.97	1.18	0.81	0.27	0.00	0.07	23	0.21	1.18
16	0.10	0.12	0.30	0.34	0.33	0.32	0.18	0.39	0.16	0.34	0.05	0.12	24	0.14	0.39
17	0.05	0.01	0.04	0.06	0.03	0.00	0.06	0.13	0.23	0.28	0.23	0.14	23	0.10	0.28
18	0.00	0.01	0.03	0.02	0.13	0.37	0.37	0.37	0.26	0.07	0.16	0.00	24	0.16	0.49
19	0.00	0.15	0.11	0.03									16	0.05	0.24
20	0.00	0.02	0.00	0.21	0.55	2.16	1.20	1.21	2.23	0.68	0.00		18	0.48	2.23
21	0.08	0.01	0.00	0.00	0.07	0.00	0.05	0.39	0.23	0.27	0.15	0.15	24	0.09	0.39
22	0.09	0.00	0.04	0.02	0.00	0.08	0.13	0.20	0.09	0.02	0.11	0.25	21	0.29	0.87
23		0.01	0.00	0.00	0.02	0.08	0.31	0.10	0.13	0.20	0.00	0.02	13	0.07	0.31
24	0.00	0.00	0.00	0.20	0.24	0.10	0.13	0.16	0.08	0.04	0.08	0.00	23	0.07	0.24
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	24	0.00	0.01
26	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24	0.00	0.08
27		0.00	0.00	0.00	0.16	0.24	0.66	0.75	0.51	0.60	0.07	0.60	23	0.13	0.75
28	0.00	0.14	0.04	0.00	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00	24	0.01	0.14
29	0.08	0.00	0.08	0.17	0.27	0.22	0.18	0.59	0.49	0.40	0.24	0.21	24	0.13	0.59
30	0.11	0.09			0.12	0.11	0.16	0.18	0.12	0.12	0.08	0.03	22	0.12	0.26
31	0.14	0.08	0.08	0.20	0.16	0.23	0.38	0.18	0.13	0.15	0.26	0.27	24	0.13	0.38
NO	29	31	30	29	29	29	29	29	29	30	30	29	685		
MEAN	0.11	0.10	0.12	0.15	0.20	0.23	0.26	0.32	0.30	0.22	0.15	0.10		0.16	
MAX	0.50	0.50	0.48	0.47	0.82	2.16	1.20	1.21	2.23	0.89	0.96	0.67			2.23

AIR QUALITY DATA REPORT

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBON UNITS: PARTS PER MILLION MIN DET: .2 BAROAD KEY: 373000997A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH YEAR: 1977

KEY-1: 373000997A05177 KEY-2: 090100 KEY-3: 4310211072 AREA: 3000 SITE: 997 UNITS CODE: 07 DECIMAL CODE: 2

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	0.12	0.12	0.15	0.28	0.33	0.29	0.18	0.32	0.17		0.06	0.07
02	0.14	0.15	0.19	0.14	0.14	0.19	0.51	0.56	0.26	0.14	0.22	0.14
03	0.31	0.34	0.19	0.69	0.57	0.39	0.26	0.32	0.13	0.26	0.23	0.13
04	0.00	0.57	0.30	0.36	0.19	0.16	0.05	0.15			0.12	0.13
05	0.08	0.04	0.07	0.02	0.05	0.09	0.18	0.07	0.09	0.12	0.17	0.11
06	0.14	0.13	0.15	0.09	0.15	0.24	0.47	0.54	0.40	0.25		0.15
07	0.28	0.21	0.19	0.15	0.21	0.31	0.50	0.53	0.39	0.26	0.20	0.23
08	0.71	0.81	1.45	0.52	0.76	0.64	0.84	0.85	0.41	0.17	0.12	0.13
09	0.12	0.17	0.16	0.20	0.26	0.22	0.34	0.73	0.78		1.23	0.57
10	0.17	0.15	0.21	0.16	0.23	0.24	0.27	0.29	0.42	0.48	0.34	0.35
11	0.30	0.23	0.20	0.24	0.15	0.13	0.16	0.18	0.21	0.23	0.14	0.18
12	0.15	0.16	0.13	0.30	0.11	0.14	0.14	0.34	0.26			
13												
14												
15								0.15	0.55	0.34	0.34	0.16
16	0.03	0.00	0.00	0.00	0.12	0.36	0.62	0.98	0.85	0.39	0.19	0.02
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01	0.00	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	
19	0.00	0.07	0.17	0.07	0.11	0.10	0.16	0.11	0.08	0.08	0.10	0.10
20	0.27	0.20	0.22	0.00	0.25	0.35	2.02	1.19	0.52	0.16	0.15	0.11
NO	17	17	17	17	17	17	17	18	17	14	16	16
MEAN	0.20	0.20	0.23	0.19	0.21	0.23	0.39	0.41	0.32	0.21	0.23	0.16
MAX	0.71	0.81	1.45	0.69	0.76	0.64	2.02	1.19	0.85	0.48	1.23	0.57

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	0.13	0.04	0.13	0.08	0.12	0.21	0.20	0.51	0.54	0.28	0.19	0.14	23	0.20	0.54
02	0.17	0.13	0.18	0.12	0.18	0.23	0.43	0.63	0.71	0.47	0.52	0.65	24	0.30	0.71
03	0.14	0.22	0.34	0.53	0.69	1.90	1.72	0.99	1.94	2.39	0.80	2.04	24	0.73	2.39
04	0.11	0.19	0.17	0.22	0.14	0.18	0.18	0.22	0.17	0.24	0.17	0.15	22	0.22	0.60
05	0.15	0.08	0.16	0.10	0.14	0.21	0.31	0.23	0.36	0.29	0.18	0.19	24	0.15	0.36
06	0.15	0.23	0.20	0.20	0.29	0.25	0.32	0.55	0.55	0.30	0.20	0.21	22	0.27	0.55
07	0.23	0.26	0.23	0.27	0.30	0.27	0.47	0.72	0.76	0.78	0.61	0.69	24	0.38	0.78
08	0.28	0.22	0.20	0.22	0.20	0.23	0.30	0.22	0.17	0.17	0.16	0.13	24	0.41	1.45
09	0.30	0.22	0.23	0.26	0.13	0.20	0.26	0.26	0.26	0.29	0.25	0.28	23	0.34	1.23
10	0.24	0.22	0.20	0.26	0.30	0.34	0.33	0.41	0.32	0.48	0.36	0.30	24	0.29	0.48
11	0.26	0.28	0.22	0.17	0.17	0.15	0.18	0.24	0.17	0.16	0.08	0.20	24	0.19	0.30
12													9	0.19	0.34
13													0		
14													0		
15	0.21	0.43	0.05	0.03	0.10	0.15	0.32	0.21	0.12	0.13	0.00	0.00	17	0.19	0.55
16	0.03	0.06	0.07	0.03	0.04	0.09	0.13	0.14	0.10	0.02	0.00	0.00	24	0.18	0.98
17	0.00	0.00	0.00	0.08	0.58	0.12	0.91	1.13	0.74	1.31	0.00	0.00	24	0.20	1.31
18	0.00	0.00	0.03	0.07	0.09	0.21	0.34	0.14	0.16	0.17	0.13	0.12	23	0.06	0.34
19	0.10	0.09	0.16	0.19	0.15	0.39	0.49	0.61	0.80	0.54	0.54	0.45	24	0.24	0.80
20	0.16	0.17	0.16	0.16	0.18	0.16	0.35	0.18	0.09	0.10	0.07		23	0.31	2.02
NO	17	17	17	17	17	17	17	17	17	17	17	16	403		
MEAN	0.16	0.17	0.16	0.18	0.22	0.31	0.43	0.43	0.47	0.48	0.25	0.35		0.28	
MAX	0.30	0.43	0.34	0.53	0.69	1.90	1.72	1.13	1.94	2.39	0.80	2.04			2.39

AGENCY: EPA - ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBON UNITS: PARTS PER MILLION MIN DET: .2 SAROAD KEY: 372260993A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - AVALON YEAR: 1977

KEY-1: 372260993A05177 KEY-2: 082800 KEY-3: 4310211072 AREA: 2260 SITE: 993 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR														
DAY	00	01	02	03	04	05	06	07	08	09	10	11			
01															
02															
03															
04															
05															
06															
07															
08															
09															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															
21															
22															
23															
24															
25															
26															
27															
28															
29	0.12	0.12	0.13	0.13	0.12	0.13	0.15	0.14	0.14	0.13	0.15	0.17			
30	0.55	0.65	0.41	0.50	1.04	0.58	0.37	0.19	0.14	0.14	0.13	0.12			
31	0.46	0.34	0.14	0.15	0.17	0.16	0.18	0.18	0.17	0.15	0.18	0.15			
NO	3	3	3	3	3	3	3	3	3	3	3	3			
MEAN	0.38	0.37	0.23	0.26	0.44	0.29	0.23	0.17	0.15	0.14	0.15	0.15			
MAX	0.55	0.65	0.41	0.50	1.04	0.58	0.37	0.19	0.17	0.15	0.18	0.17			

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01													0		
02													0		
03													0		
04													0		
05													0		
06													0		
07													0		
08													0		
09													0		
10													0		
11													0		
12													0		
13													0		
14													0		
15													0		
16													0		
17													0		
18													0		
19													0		
20													0		
21													0		
22													0		
23													0		
24													0		
25													0		
26													0		
27													0		
28													0		
29		0.11	0.09	0.09	0.09	0.11	0.26	0.59	0.63	0.53	0.58	0.13	1	0.13	0.13
30		0.14	0.13	0.11	0.12	0.12	0.24	0.31	0.42	0.24	0.28	0.43	23	0.22	0.63
31	0.15	0.14	0.14	0.15	0.12	0.11	0.12	0.14	0.16	0.53	2.35	0.72	24	0.30	2.35
NO	1	3	3	3	3	3	3	3	3	3	3	4	71		
MEAN	0.15	0.13	0.12	0.12	0.11	0.11	0.21	0.35	0.40	0.43	1.07	0.56		0.29	
MAX	0.15	0.14	0.14	0.15	0.12	0.12	0.26	0.59	0.63	0.53	2.35	0.95			2.35

AIR QUALITY DATA REPORT

AGENCY: EPA = ATMOSPHERIC SURVEILLANCE STATE: OKLAHOMA PROJECT: SPECIAL STUDIES

PARAMETER: NONMETHANE HYDROCARBON UNITS: PARTS PER MILLION MIN DET: .2 SAROAD KEY: 372260993A05

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: FLAME IONIZATION MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - OKMONA YEAR: 1977

KEY-1: 372260993A05177 KEY-2: 090100 KEY-3: 4310211072 AREA: 2260 SITE: 993 UNITS CODE: 07 DECIMAL CODE: 2

	HOUR											
DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	0.59	0.69	0.64	0.45	0.49	0.10	0.14	0.13	0.11	0.10	0.12	0.10
02	0.60	0.75	0.77	1.37	1.14	1.47	1.02	0.68	0.21	0.29	0.18	0.14
03	0.48	0.77	1.05	0.99	1.30	1.80	2.21	0.87	0.30	0.36	0.25	0.1
04	1.55	1.11	1.01	0.45	0.99	1.28	1.70	1.03	0.22	0.18	0.18	0.19
05	0.16	0.16	0.36	0.17	0.15	0.13	0.14	0.17	0.14	0.13	0.14	0.13
06	0.34	0.39	0.76	0.48	0.50	0.57	0.33	0.21	0.16	0.16	0.15	0.11
07	0.37	0.36	0.31	0.31	0.59	0.86	0.80	0.38	0.21	0.20	0.17	0.17
08	1.10	1.00	1.76	1.70	1.36	1.63	2.14	1.51	0.37	0.42	0.28	0.17
09	0.32	0.61	0.52	0.83	0.52	1.28	0.77	0.66	0.39	0.29	0.28	0.15
10	0.16	0.17	0.18	0.18	0.17	0.18	0.22	0.18	0.20	0.16	0.14	0.14
11	0.23	0.23	0.25	0.54	0.26	0.26	0.33	0.30	0.16	0.16	0.16	0.22
12	0.12	0.14	0.15	0.14	0.16	0.14	0.14	0.16	0.19	0.19	0.18	0.25
13	0.16	0.20	0.34	0.25	0.33	0.29	0.44	0.25	0.27	0.34	0.22	0.15
14	0.15	0.14	0.13	0.14	0.16	0.13	0.13	0.17	0.14	0.20	0.22	0.17
15	0.18	0.20	0.20	0.19	0.17	0.14	0.16	0.43	0.28	0.26	0.22	0.20
16	0.24	0.32	0.34	0.56	0.41	0.53	0.54	0.31	0.18	0.22	0.22	0.25
17	0.15	0.14	0.12	0.13	0.11	0.13	0.16	0.16	0.20	0.17	0.14	0.14
18	0.14	0.17	0.22	0.10	0.20	0.13	0.24	0.22	0.20	0.21		0.20
19	0.28	0.32	0.23	0.16				0.22	0.20	0.27	0.10	0.23
20	1.65	0.80	1.16	1.12	1.33	1.66	1.41	0.95	0.41	0.40	0.33	0.30
21	0.36	0.23	0.19	0.19	0.23	0.26	0.28	0.25	0.24	0.21	0.22	0.23
22	0.29	0.30	0.31	0.63	0.42	0.48	0.43	0.32	0.31	0.25	0.23	0.21
23	0.26	0.23	0.28	0.29	0.27	0.46	0.33	0.29	0.32	0.30	0.29	0.39
NO	23	23	23	23	22	22	22	23	23	23	22	23
MEAN	0.44	0.41	0.49	0.51	0.50	0.63	0.64	0.43	0.24	0.24	0.20	0.19
MAX	1.65	1.11	1.76	1.70	1.36	1.80	2.21	1.51	0.41	0.42	0.33	0.39

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01		0.13	0.13	0.10	0.10	0.12	0.18	0.28	0.41	0.59	0.62	0.51	23	0.29	0.62
02	0.14	0.11	0.12	0.09	0.12	0.14	0.38	0.51	0.41	0.44	0.55	0.57	24	0.52	1.47
03	0.15	0.16	0.16	0.13	0.13	0.13	0.25	0.32	0.21	0.22	0.60	1.46	24	0.60	2.21
04		0.32	0.27	0.21	0.17	0.18	0.15	0.13	0.14	0.20	0.12	0.17	23	0.54	1.70
05	0.13	0.12	0.11	0.12	0.11	0.18	0.22	0.32	0.20	0.18	0.23	0.17	24	0.17	0.36
06	0.11	0.11	0.12	0.12	0.13	0.17	0.31	0.21	0.25	0.21	0.31	0.39	24	0.28	0.76
07	0.12	0.14	0.11	0.11	0.12	0.16	0.21	0.38	0.82	0.96	0.95	1.08	24	0.41	1.06
08	0.18	0.14	0.14	0.14	0.14	0.22	0.26	0.41	0.27	0.19	0.36	0.45	24	0.68	2.14
09	0.15	0.13	0.16	0.16	0.15	0.15	0.15	0.15	0.15	0.16	0.20	0.17	23	0.36	1.28
10	0.14		0.14	0.19	0.13	0.21	0.23	0.22	0.23	0.20	0.23	0.27	24	0.18	0.27
11	0.37	0.16	0.13	0.12	0.15	0.16	0.15	0.32	0.35	0.36	0.22	0.12	22	0.25	0.54
12	0.14	0.13	0.13	0.14	0.11	0.14	0.11	0.22	0.17	0.31	0.21	0.13	24	0.16	0.31
13	0.13	0.18	0.14	0.19	0.12	0.12	0.14	0.15	0.13	0.17	0.17	0.14	24	0.20	0.44
14	0.18	0.20	0.19	0.17	0.16	0.19	0.24	0.15	0.22	0.12	0.13	0.13	24	0.16	0.24
15	0.21	0.14	0.12	0.11	0.18	0.17	0.28	0.34	0.30	0.32	0.28	0.17	24	0.23	0.43
16	0.17	0.14			0.10	0.13	0.12	0.14	0.28	0.26	0.17	0.16	24	0.25	0.56
17	0.13	0.19	0.21		0.11	0.11	0.11	0.11	0.11		0.12	0.13	21	0.13	0.20
18	0.23	0.34	0.36	0.28	0.27	0.36	0.52	1.93	1.42	0.66	0.79	0.22	15	0.19	0.24
19	0.24	0.31	0.34	0.34	0.28	0.22	0.31	0.48	0.52	0.59	0.28	1.00	21	0.48	1.93
20	0.37	0.21	0.12	0.18	0.21	0.24	0.34	0.35	0.27	0.23	0.27	0.48	24	0.66	1.66
21	0.24	0.23	0.23	0.19	0.20	0.35	0.24	0.35	0.36	0.40	0.40	0.25	24	0.24	0.36
22												0.30	23	0.32	0.63
23	0.39												13	0.31	0.46
NO	20	20	20	20	21	21	21	21	21	20	21	22	528		
MEAN	0.20	0.18	0.17	0.16	0.15	0.18	0.23	0.35	0.34	0.34	0.35	0.38		0.34	
MAX	0.39	0.34	0.36	0.34	0.28	0.36	0.52	1.93	1.42	0.96	0.95	1.48			2.21

SECTION 4.8

WIND SPEED

Preceding page blank

Preceding page blank

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A05)

WIND SPEED
AUTO
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

JUL 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5													15.0	15.0	14.0	11.0	10.0	11.5	10.0	7.0	5.0	2.5	2.5	1.5	8.7	12
6	1.5	1.5	1.5	1.5	1.5	2.0	4.5	6.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	10.0	10.0	6.0	6.0	5.0	2.5	2.5	5.0	6.1	24
7	5.0	3.0	2.5	4.0	3.5	8.5	6.5	6.5	6.5	6.0	7.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	10.0	9.0	5.0	2.5	2.5	2.0	6.8	24
8	2.5	2.5	3.0	4.0	5.0	5.0	8.5	5.5	6.5	6.0	7.5	7.5	6.0	5.0	6.0	6.0	6.0	8.0	10.0	7.0	5.0	5.0	4.0	4.5	5.6	24
9	1.5	4.0	5.0	3.0	2.5	1.5	1.5	1.5	3.0	4.0	3.0	3.0	4.5	5.0	5.0	7.0	9.0	2.5	5.0	5.0	5.0	2.5	2.5	2.5	3.7	24
10	2.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	7.0	7.0	7.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	9.0	3.5	3.0	2.5	2.0	4.1	24
11	5.0	8.0	10.0	10.0	8.0	10.0	10.0	10.0	8.0	15.0	16.0	15.0	13.0	10.0	14.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	10.0	10.0	11.9	24
12	10.0	10.0	10.0	6.5	5.0	5.5	10.0	11.0	10.5	15.0	14.0	15.0	13.0	14.0	15.0	15.0	14.0	12.0	10.0	10.0	8.5	6.5	5.5	5.0	10.5	24
13	7.0	9.0	7.0	5.0	3.5	2.0	3.5	4.5	8.0	9.0	9.5	10.0	10.0	10.0	10.0	10.0	10.0	9.0	10.0	9.0	4.5	3.0	2.0	1.0	6.9	24
14	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.5	3.5	3.5	3.5	6.0	6.5	9.0	7.5	10.0	5.0	5.0	10.0	8.5	10.0	8.5	3.5	2.5	4.9	24
15	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.5	2.5	6.0	7.0	5.5	6.0	9.0	10.0	10.0	10.0	10.0	9.0	6.5	2.5	2.5	2.5	4.5	4.9	24
16	4.0	3.5	2.0	4.0	4.0	2.5	1.5	2.0	6.5	6.5	7.5	7.0	8.5	9.5	9.0	9.0	8.5	8.0	9.0	10.0	8.5	4.0	2.0	2.5	5.9	24
17	5.0	4.0	2.5	1.5	1.0	2.0	1.0	1.0	4.5	8.5	10.0	10.0	10.0	10.0	11.0	10.0	10.0	10.0	10.0	9.5	7.5	2.5	3.0	2.5	6.1	24
18	2.5	2.5	2.0	2.5	3.5	4.0	5.0	5.0	5.0	5.0	7.0	6.5	10.0	10.0	9.0	10.0	10.0	10.0	10.0	10.0	6.5	2.5	2.5	2.5	6.0	24
19	2.5	1.5	2.5	2.5	3.5	2.5	1.5	.0	4.5	5.5	5.0	7.0	10.0	12.0	10.0	10.0	9.0	7.5	8.0	9.0	9.0	8.0	7.5	5.0	6.0	24
20	5.0	5.0	5.0	3.5	1.0	2.0	2.5	2.5	4.5	6.5	8.0	6.0	6.0	7.0	7.0	12.0	14.0	10.0	8.5	9.5	10.0	7.0	5.0	3.5	6.2	24
21	2.5	4.5	4.0	5.0	2.5	3.0	3.0	1.5	2.5	5.0	10.0	10.0	11.0	10.0	10.0	10.0	9.0	9.0	5.5	3.5	3.5	5.0	4.0	4.5	5.8	24
22	3.0	3.5	1.5	2.0	2.0	2.0	1.0	1.0	5.0	4.5	5.0	4.0	4.5	4.0	5.0	4.0	17.5	10.0	5.0	3.5	2.0	1.0	1.0	4.0	4.0	24
23	1.0	1.0	1.0	1.0	1.5	2.0	2.0	.5	.5	2.5	3.5	4.0	5.0	4.0	3.5	4.0	2.5	2.5	3.0	7.0	2.5	2.5	2.5	2.6	2.6	24
24	3.0	2.5	1.0	2.0	2.0	2.5	2.0	3.5	6.0	8.5	11.5	10.0	10.0	8.5	5.0	5.0	5.0	4.0	3.0	4.5	9.0	9.0	9.5	10.0	5.7	24
25	8.0	5.5	6.5	6.0	5.5	5.0	5.0	6.0	6.5	9.0	10.0	9.0	10.0	9.0	9.0	7.5	5.0	5.0	10.0	5.0	4.0	3.5	6.5	6.5	6.8	24
26	2.5	2.5	5.0	5.0	5.0	5.0	3.5	2.5	3.5	3.5	3.0	4.5	5.5	8.0	6.5	8.0	8.0	8.5	6.5	5.5	5.0	4.0	7.0	3.0	5.1	24
27	4.0	5.0	6.5	5.0	5.0	4.0	5.0	4.5	4.5	4.0	5.0	4.0	4.5	5.0	4.0	4.5	3.0	2.0	2.0	3.0	3.0	3.5	2.5	4.1	24
28	2.5	1.5	2.0	2.5	2.5	2.0	2.0	2.0	2.5	3.0	3.5	2.5	2.5	3.5	3.5	4.5	4.5	4.0	2.5	2.0	1.5	1.0	1.0	2.5	24
29	2.0	6.5	6.0	1.5	1.5	1.5	1.5	1.5	4.5	5.0	4.0	3.0	3.0	5.0	4.0	4.5	4.5	4.0	5.0	4.0	2.5	9.0	7.5	3.9	24
30	20.0	15.0	15.0	15.0	12.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.0	5.0	5.0	3.0	2.5	3.5	4.0					9.3	19
31									15.0	15.0	16.0	15.0	12.0	12.0	11.0	16.0	15.0	15.0	15.0	15.0	10.0	12.0	10.0	10.0	13.3	16
AVG	4.2	4.2	4.2	3.9	3.4	3.5	3.7	3.8	5.3	7.1	7.8	7.8	8.1	8.3	8.2	8.7	8.3	8.2	7.9	7.9	6.2	4.9	4.4	4.0	6.0	
NO.	25	25	25	25	25	25	25	25	24	24	24	24	27	27	27	27	27	27	27	24	24	24	26	26		623
MAX	20.0	15.0	15.0	15.0	12.0	10.0	10.0	11.0	15.0	15.0	16.0	15.0	15.0	15.0	15.0	16.0	15.0	17.5	15.0	15.0	15.0	15.0	10.0	10.0	20.0	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #A BUILDI
(372240999A051)

WIND SPEED
AIIOIII
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

AUG 1977

1-HOUR DATA LISTING

DAY	AM												PM											DAILY MEAN NO.	
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	7.0	9.0	9.0	9.0	9.0	10.0	9.0	10.0	10.0	10.0	15.0														9.7	10
2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0	8.0	10.0	9.0	8.0	9.0	9.0	10.0	10.0	9.0	10.0	9.0	6.0	5.0	5.0	6.2	24
3	5.0	5.0	5.0	5.0	6.0	6.0	7.0	7.0	7.0	8.0	1.0	1.0	1.5	2.0	7.0	1.5		2.0	2.5	2.5	2.5	3.5	2.0	1.5	3.4	23
4	3.0	3.0	3.0	5.0	5.0	5.0	2.5	2.5	2.5	2.5	2.5	2.5	4.0	5.0	4.0	1.5	1.5	5.0	5.0	3.0	4.0	5.0	8.0	10.0	4.0	24
5	10.0	10.0	8.0	8.0	6.0	5.0	9.0	8.0	7.0	10.0	9.0	10.0	10.0	10.0	10.0	8.0	5.0	8.0	10.0	10.0	10.0	10.0	8.0	8.0	8.4	24
6																										0
7																										0
8																										0
9													15.0	14.0	14.5	15.0	12.0	12.0	12.0	12.0	10.0	6.0	4.5	9.5	11.5	12
10	6.5	6.5	5.0	5.0	4.5	4.5	2.5	3.0	3.5	8.0	7.5	7.0	8.5	5.0	5.0	5.0	9.0	2.5	4.0	5.0	14.5	15.0	9.5	5.0	6.3	24
11	3.5	2.5	5.0	2.5	2.5	2.5	5.0	5.0	2.0	6.0	5.0	9.0	10.0	9.0	8.0	8.0	10.0	10.0	9.5	7.5	9.0	10.0	8.5	9.0	6.6	24
12																										0
13	3.0	2.2	1.6	1.0	2.0	1.1	1.0	1.9	3.4	6.7	7.0	7.4	8.5	8.1	8.9	9.9	7.1	6.1	5.9	6.7	9.9	9.5	1.9	2.8	4.4	24
14	3.7	3.9	2.9	1.6	1.8	1.7	2.2	2.2	2.6	4.2	7.2	7.8	6.4	6.4	5.5	5.8	5.8	7.7	7.3	7.0	13.0	4.0	10.0	8.0	5.4	24
15	3.3	2.1	3.6	3.7	4.4	3.5	2.0	1.6	1.8	2.9	5.8	6.8	6.1	7.0	6.5	6.0	5.8	6.4	6.6	6.7	8.6	10.0	8.1	6.2	5.7	24
16	5.0	3.4	3.0	3.1	3.7	4.7	5.3	6.0	6.5	8.1	9.5	12.0	12.4	9.6	8.5	10.4	10.1	8.9	10.4	10.0	11.2	9.0	7.5	2.0	7.6	24
17	3.0	2.0	1.6	2.2	2.7	4.8	4.3	4.1	5.7	6.5	5.8	2.0	3.7	4.6	4.6	11.0	10.0	10.8	11.0	12.0	9.5	9.5	4.0	2.4	5.8	24
18	1.1	2.3	1.2	1.0	3.2	4.0	3.0	1.8	3.3	2.3	3.0	4.6	4.8	4.8	2.1	5.5	6.4	6.0	6.7	7.0	6.0	6.7	4.0	6.3	4.3	24
19	4.0	2.5	2.5	2.3	3.8	3.0	1.0	2.0	4.0	3.0	2.0	2.8	3.0	3.0	3.5	4.0	5.0	10.0	7.0	8.5	8.5	7.0	4.8	2.0	4.1	24
20	1.5	2.0	2.0	2.3	1.3	1.3	1.3	1.5	1.5	1.8	1.3	1.3	1.5	2.0	1.8	4.5	5.5	4.3	2.2	3.0	4.0	5.0	4.0	3.5	2.5	24
21	3.5	.3	1.2	3.0	3.0	1.5	1.3	2.0	2.8	1.8	2.0	2.0	3.0	2.8	3.0	3.8	4.0	3.8	4.0	4.5	2.5	5.0	4.0	1.8	2.8	24
22	.5	2.3	1.3	1.2	.8	1.0	1.0	1.0	.8	1.0	.8	.5	1.8	2.5	3.2	4.0	4.2	6.2	7.0	8.0	8.5	7.0	8.3	6.0	3.3	24
23	7.0	3.8	4.3	2.5	1.8	1.5	3.0	10.0	6.3	4.0	3.0	3.8	7.0	8.0	7.0	7.5	5.0	3.5	3.0	3.5	4.0	5.0	4.5	6.8	4.8	24
24	4.3	1.0	1.0	1.0	1.5	.8	1.0	2.2	1.0	3.0	6.0	6.3	8.8	10.0	7.2	7.5	8.3	9.5	10.0	7.5	7.0	5.5	3.0	1.2	4.8	24
25	1.0	.5	1.8	3.0	2.0	1.5	5.0	6.5	5.5	9.5	13.0	14.0	13.0	12.0	14.0	12.2	14.5	7.0	9.0	13.0	10.0	8.0	9.8	8.0	8.0	24
26	7.5	6.5	8.0	8.0	8.0	9.8	8.2	8.5	7.0	11.2	13.5	14.8	17.0	16.2	13.0	14.2	16.0	16.2	15.5	14.0	13.0	11.0	12.0	11.5	11.4	24
27	11.5	13.0	13.0	12.2	12.5	14.5	14.0	12.8	11.0	15.0	17.0	19.0	18.0	18.0	20.0	19.0	18.2	18.5	18.5	17.8	16.5	12.5	12.0	12.0	15.3	24
28	13.0	14.8	13.5	13.5	14.8	13.0	13.3	13.0	12.0	9.0	13.3	13.3	12.0	10.5	9.8	6.8	5.5	9.0	7.8	5.3	3.3	4.0	5.0	4.5	10.1	24
29	5.8	6.0	5.3	5.0	5.0	3.0	4.0	3.5	4.0	4.0	3.8	4.3	3.5	2.5	2.5	2.2	2.0	4.0	4.0	2.8	3.0	1.5	.5	.5	3.4	24
30	1.0	1.8	1.3	.8	3.0	4.5	1.0	.8	2.0	2.5	5.5	9.0	9.5	9.5	10.0	9.5	9.0	9.0	11.0	9.5	8.0	5.5	5.8	4.8	5.6	24
31	2.0	1.8	6.5	7.0	4.5	4.8	7.0	7.8	10.5	10.5	11.8	13.5	15.0	13.5	11.8	12.2	11.0	11.0	11.5	10.3	9.0	5.8	4.0	2.0	8.5	24
AVG	4.6	4.3	4.4	4.3	4.5	4.5	4.5	4.9	4.9	6.1	6.5	7.4	8.2	8.1	7.7	7.7	8.0	8.0	8.1	8.0	8.1	6.9	6.3	5.4	6.3	
NO.	26	26	26	26	26	26	26	26	26	26	25	25	26	26	26	26	25	26	26	26	26	26	26	26		621
MAX	13.0	14.8	13.5	13.5	14.8	14.5	14.0	13.0	12.0	15.0	17.0	19.0	18.0	18.0	20.0	19.0	18.2	18.5	18.5	17.8	16.5	15.0	12.0	12.0	20.0	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #A BUILDI
(372240999A05)

WIND SPEED
A110111
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

SEP 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.8	.3	1.3	2.8	1.0	1.0	1.2	1.3	2.2	2.0	4.0	3.5	6.0	9.0	9.0	9.8	9.2	9.5	9.0	7.3	5.0	2.0	1.0	1.0	4.1	24
2	3.3	2.0	1.0	2.0	1.0	.5	1.3	.5	1.0	1.3	1.8	4.8	4.5	4.8	3.5	6.5	7.2	6.3	5.5	5.8	3.0	2.0	1.0	.3	3.0	24
3	.5	1.5	1.0	1.5	1.8	2.0	2.0	1.0	.8	.3	1.8	3.0	6.0	6.0	4.0	4.0	4.5	7.5	7.5	8.0	5.5	2.8	1.0	1.8	3.1	24
4	1.0	.8	1.8	1.8	1.0	1.3	1.0	1.8	1.5	1.0	3.0	7.0	8.0	6.3	6.0	4.0	4.0	6.5	5.0	4.8	4.0	2.5	3.2	4.0	3.4	24
5	3.5	2.0	3.3	4.0	7.5	7.5	5.8	6.0	5.0	4.5	5.5	4.8	5.5	4.8	5.5	6.0	5.8	6.0	6.0	5.3	5.0	4.5	3.0	3.5	5.0	24
6	3.0	3.0	1.8	2.0	2.0	1.3	3.0	4.0	2.3	.5	3.3	5.8	7.0	7.0	7.5	7.0	8.0	7.0	6.5	6.5	5.0	2.5	2.5	2.5	4.2	24
7	2.0	2.0	2.3	1.5	2.0	3.0	.5	1.3	1.2	2.3	4.0	4.8	5.3	5.5	6.0	7.5	8.3	9.0	7.5	6.3	3.7	1.3	1.5	1.0	3.7	24
8	.8	1.8	.8	1.3	1.0	1.5	1.8	1.0	1.5	1.7	1.5	2.2	8.5	7.5	7.0	7.0	6.0	5.5	5.0	6.3	5.3	5.0	6.0	7.0	3.8	24
9	4.0	5.5	6.5	4.0	4.0	2.0	2.3	2.0	2.8	3.5	2.5	2.5	2.5	3.0	3.0	3.8	4.0	7.8	9.5	11.3	12.0	9.3	5.8	4.5	4.9	24
10	3.3	3.8	4.8	4.5	5.0	4.0	4.0	4.5	6.0	3.3	6.0	7.0	7.0	7.0	8.5	7.0	6.0	5.0	5.3	6.3	6.0	3.8	1.8	1.8	5.1	24
11	2.3	1.3	2.8	5.0	5.5	5.0	3.0	4.3	4.8	5.8	4.3	5.0	9.0	8.5	8.3	9.3	9.0	7.5	6.0	9.0	7.5	5.0	4.0	7.5	5.7	24
12	7.8	9.0	6.8	9.5	9.5	7.0	7.0	7.0	8.0	10.5	13.5	14.3	14.5	15.8	14.5	15.0	13.0	11.5	10.5	10.0	15.0	15.0	12.0	11.0	11.2	24
13	6.8	8.3	8.8	8.8	6.8	2.8	3.5	3.0	4.0	4.5	3.3	2.5	1.5	2.5	4.8	4.8	8.0	8.5	10.0	10.8	11.3	11.0	9.5	9.0	6.4	24
14	9.0	12.0	12.0	10.5	10.5	11.3	8.8	8.8	9.3	10.3	11.0	10.0	10.3	10.8	10.5	10.0	8.8	9.8	9.0	10.0	9.0	8.5	7.8	6.0	9.7	24
15	5.3	5.5	6.0	6.0	7.0	6.5	5.5	4.0	4.8	5.8	4.5	4.0	7.5	8.0	5.3	4.0	5.5	6.3	5.8	4.8	3.8	2.8	2.0	2.5	5.4	24
16	3.3	5.5	4.0	7.3	5.5	7.5	5.5	2.5	1.0	2.0	3.8	4.8	6.5	9.5	12.5	17.0	16.0	15.3	14.0	12.0	9.0	8.5	7.5	7.3	7.9	24
17	6.3	8.0	9.0	8.0	7.5	6.5	7.5	10.0	9.3	7.8	11.3	14.5	16.5	16.8	16.8	16.5	13.8	15.8	15.8	13.3	8.5	7.3	7.5	9.5	11.0	24
18	9.5	13.3	15.0	13.0	10.0	11.8	13.3	17.0	16.0	6.0	14.0	17.3	9.0	4.8	10.3	12.5	11.5	11.0	9.0	6.8	6.8	7.8	8.5	6.0	10.3	24
19	5.2	4.3	3.5	2.8	5.1	7.1	8.0	4.0	4.6	7.4	8.5	9.1	10.0	10.1	8.7	7.1	5.7	6.3	7.0	6.1	3.3	1.8	.9	1.5	5.8	24
20	1.4	.8	1.1	1.2	1.1	2.1	1.6	1.3	2.1	1.5	1.5	3.3	7.2	7.5	7.0	7.0	7.1	8.0	7.9	8.0	5.0	3.7	3.9	3.7	4.0	24
21	4.0	6.0	9.0	9.0	10.1	12.0	10.8	6.7	5.5	11.0	12.2	15.8	17.0	17.0	15.5	16.0	17.5	15.8	15.0	12.0	9.6	10.8	11.8	11.4	11.7	24
22	13.0	7.2	2.6	2.2	.6	1.0	1.5	4.6	5.0	4.0	5.6	8.9	12.1	12.3	11.5	11.5	11.7	12.7	12.3	12.0	9.0	5.0	8.0	9.5	7.4	24
23	6.0	6.0	8.0	8.0	7.0	6.0	5.0	5.0	9.2	9.0	9.8	11.5	13.5	13.0	13.2	10.3	15.5	15.0	14.0	11.0	8.5	8.0	7.5	9.8	9.6	24
24	12.7	9.7	16.5	17.0	15.2	9.4	3.8	6.5	5.0	5.6	6.0	5.5	7.0	8.0	7.5	6.2	6.8	7.0	7.0	6.0	3.5	2.0	1.8	1.3	7.9	24
25	2.2	2.1	1.3	1.3	1.9	.5	2.0	9.0	12.5	12.8	13.5	15.7	13.0	10.5	7.3	9.3	6.0	5.3	9.1	9.5	5.3	3.9	1.0	1.4	5.9	24
26	2.4	2.8	2.0	2.2	3.6	2.3	2.8	2.0	1.1	2.0	2.3	4.2	10.0	10.8	12.0	12.3	11.0	13.3	12.0	9.0	4.5	1.5	3.5	7.3	5.7	24
27	9.0	10.0	11.0	9.7	7.3	5.0	1.5	5.0	6.5	6.0	7.3	9.0	9.0	8.8	8.7	8.3	6.0	6.7	6.5	7.9	5.8	2.5	4.0	4.7	6.9	24
28	3.0	3.0	3.2	3.4	3.5	4.6	4.8	6.7	6.2	7.3	7.2	10.0	8.3	7.0	7.5	7.4	7.0	8.8	7.0	8.0	9.9	9.8	7.0	5.2	6.5	24
29	5.1	16.0	14.0	5.0	7.1	7.3	5.7	5.8	7.6	10.7	9.0	12.3	9.0	7.9	6.7	5.8	3.5	3.2	3.4	3.2	4.5	4.5	3.2	7.6	6.8	24
30	3.6	3.4	3.4	3.6	4.5	5.5	7.4	6.0	5.7	6.3	10.4	14.5	18.0	20.0	18.0	17.3	16.7	15.0	16.2	14.7	13.0	9.0	13.0	16.5	10.9	24
AVG	4.7	5.2	5.6	5.3	5.2	4.8	4.4	4.8	5.1	5.2	6.4	7.8	8.9	9.0	9.0	8.8	8.8	9.1	8.6	8.3	6.9	5.3	5.0	5.2	6.6	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		720
MAX	13.0	16.0	16.5	17.0	15.2	12.0	13.3	17.0	16.0	12.8	14.0	15.8	18.0	20.0	18.0	17.3	17.5	15.8	16.2	14.7	15.0	15.0	13.0	16.5	20.0	

AIR QUALITY DATA REPORT

AGENCY: COUNTY STATE: OKLAHOMA PROJECT: POPULATION-ORIENTED SURV.

PARAMETER: WIND SPEED, MS UNITS: MILES PER HOUR MIN DET: .1 SAROAD KEY: 373000110001

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: MONTH: JULY

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH (KIND DATA - SITE 110) YEAR: 1977

KEY-1: 373000110001177 KEY-2: 070100 KEY-3: 0110111121 AREA: 3000 SITE: 110 UNITS CODE: 12 DECIMAL CODE: 1

	HOUR											
DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	5.0	5.0	6.0	9.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0	3.0
02	9.0	8.0	9.0	9.0	10.0	11.0	9.0	13.0	13.0	12.0	13.0	14.0
03	15.0	14.0	13.0	13.0	10.0	10.0	11.0	12.0	11.0	10.0	12.0	13.0
04	11.0	12.0	10.0	10.0	9.0	8.0	7.0	9.0	8.0	9.0	8.0	8.0
05	9.0	8.0	7.0	6.0	6.0	7.0	6.0	8.0	8.0	8.0	11.0	11.0
06	7.0	7.0	7.0	7.0	7.0	9.0	9.0	10.0	11.0	10.0	9.0	10.0
07	8.0	8.0	8.0	8.0	8.0	11.0	9.0	10.0	9.0	10.0	9.0	10.0
08	5.0	7.0	5.0	4.0	6.0	13.0	10.0	9.0	5.0	5.0	6.0	5.0
09	5.0	3.0	4.0	3.0	3.0	5.0	7.0	3.0	3.0	3.0	4.0	4.0
10	4.0	3.0	2.0	4.0	5.0	5.0	5.0	6.0	8.0	9.0	8.0	7.0
11	9.0	12.0	13.0	11.0	12.0	13.0	13.0	13.0	13.0	14.0	13.0	11.0
12	16.0	17.0	13.0	11.0	12.0	11.0	11.0	12.0	14.0	17.0	16.0	14.0
13	10.0	8.0	8.0	7.0	8.0	8.0	8.0	7.0	8.0	10.0	9.0	10.0
14	7.0	6.0	6.0	6.0	5.0	7.0	8.0	7.0	7.0	7.0	7.0	7.0
15	5.0	4.0	4.0	3.0	5.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0
16	6.0	6.0	6.0	8.0	9.0	7.0	7.0	8.0	8.0	7.0	9.0	8.0
17	9.0	8.0	6.0	5.0	7.0	7.0	8.0	10.0	11.0	13.0	12.0	13.0
18	6.0	6.0	6.0	6.0	5.0	6.0	7.0	7.0	7.0	7.0	9.0	10.0
19	7.0	7.0	7.0	7.0	6.0	7.0	8.0	8.0	8.0	7.0	8.0	10.0
20	11.0	11.0	11.0	8.0	8.0	8.0	8.0	7.0	9.0	8.0	7.0	7.0
21	7.0	8.0	10.0	10.0	9.0	8.0	8.0	7.0	9.0	9.0	9.0	9.0
22	4.0	3.0	4.0	6.0	6.0	6.0	7.0	7.0	7.0	6.0	5.0	5.0
23	3.0	3.0	4.0	4.0	2.0	2.0	2.0	2.0	3.0	6.0	5.0	5.0
24	7.0	9.0	7.0	6.0	7.0	7.0	11.0	10.0	10.0	12.0	10.0	10.0
25	14.0	12.0	12.0	13.0	13.0	11.0	9.0	8.0	10.0	8.0	8.0	10.0
26	10.0	9.0	9.0	8.0	7.0	6.0	6.0	6.0	10.0	10.0	8.0	7.0
27	9.0	8.0	7.0	7.0	7.0	6.0	5.0	4.0	4.0	4.0	4.0	3.0
28	5.0	5.0	5.0	4.0	5.0	4.0	4.0	3.0	4.0	3.0	2.0	3.0
29	11.0	7.0	5.0	5.0	4.0	3.0	3.0	4.0	4.0	3.0	3.0	3.0
30	8.0	8.0	8.0	8.0	8.0	9.0	11.0	9.0	9.0	10.0	10.0	10.0
31	8.0	15.0	15.0	13.0	5.0	4.0	5.0	5.0	4.0	2.0	2.0	3.0
NO	31	31	31	31	31	31	31	31	31	31	31	31
MEAN	8.1	8.0	7.6	7.4	7.1	7.4	7.5	7.8	7.9	8.1	8.0	8.1
MAX	16.0	17.0	15.0	13.0	13.0	13.0	13.0	13.0	14.0	17.0	16.0	14.0

	HOUR														
DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	3.0	3.0	5.0	5.0	6.0	7.0	7.0	9.0	7.0	7.0	7.0	9.0	24	5.8	9.0
02	15.0	16.0	17.0	17.0	17.0	18.0	15.0	14.0	11.0	10.0	13.0	14.0	24	12.8	18.0
03	12.0	12.0	14.0	15.0	15.0	15.0	15.0	13.0	9.0	9.0	10.0	10.0	24	12.2	15.0
04	13.0	13.0	12.0	14.0	14.0	15.0	13.0	10.0	8.0	7.0	8.0	8.0	24	10.2	15.0
05	11.0	13.0	12.0	13.0	12.0	12.0	12.0	10.0					20	9.4	13.0
06	10.0	11.0	12.0	12.0	12.0	12.0	12.0	10.0	9.0	8.0	9.0	9.0	24	9.5	12.0
07	10.0	10.0	12.0	12.0	12.0	11.0	11.0	8.0	8.0	5.0	4.0	4.0	24	9.0	12.0
08	5.0	7.0	7.0	8.0	11.0	11.0	10.0	10.0	8.0	7.0	5.0	5.0	24	7.1	13.0
09	5.0	6.0	6.0	3.0	3.0	4.0	9.0	10.0	5.0	4.0	4.0	6.0	24	4.7	10.0
10	7.0	8.0	8.0	10.0	9.0	8.0	10.0	10.0	9.0	10.0	12.0	12.0	24	7.5	12.0
11	13.0	15.0	16.0	20.0	20.0	20.0	20.0	16.0	16.0	17.0	17.0	17.0	24	14.8	20.0
12	13.0	12.0	11.0	10.0	11.0	13.0	15.0	13.0	10.0	11.0	11.0	11.0	24	12.7	17.0
13	11.0	12.0	12.0	12.0	13.0	13.0	13.0	10.0	8.0	7.0	7.0	7.0	24	9.6	13.0
14	6.0	8.0	7.0	10.0	8.0	8.0	10.0	15.0	12.0	9.0	7.0	6.0	24	7.8	15.0
15	7.0	8.0	9.0	10.0	10.0	10.0	10.0	10.0	8.0	11.0	10.0	10.0	24	7.4	11.0
16	8.0	8.0	9.0	10.0	10.0	12.0	10.0	11.0	13.0	10.0	14.0	10.0	24	8.9	14.0
17	12.0	11.0	13.0	13.0	13.0	17.0	12.0	11.0	7.0	7.0	7.0	7.0	24	10.0	17.0
18	12.0	12.0	12.0	12.0	13.0	12.0	12.0	10.0	13.0	7.0	6.0	6.0	24	8.7	13.0
19	13.0	12.0	12.0	13.0	7.0	11.0	10.0	11.0	14.0	13.0	11.0	11.0	24	9.5	14.0
20	7.0	7.0	7.0	12.0	14.0	10.0	12.0	12.0	12.0	10.0	12.0	11.0	24	9.5	14.0
21	9.0	10.0	11.0	12.0	11.0	5.0	2.0	2.0	3.0	3.0	3.0	3.0	24	7.4	12.0
22	3.0	3.0	3.0	5.0	5.0	7.0	10.0	6.0	5.0	3.0	4.0	4.0	24	5.2	10.0
23	4.0	3.0	4.0	7.0	2.0	3.0	3.0	6.0	12.0	7.0	10.0	9.0	24	4.6	12.0
24	10.0	7.0	12.0	11.0	4.0	8.0	9.0	11.0	15.0	13.0	12.0	13.0	24	9.6	15.0
25	10.0	9.0	11.0	10.0	8.0	8.0	7.0	11.0	12.0	12.0	11.0	9.0	24	10.3	14.0
26	8.0	10.0	12.0	13.0	10.0	4.0	8.0	9.0	8.0	8.0	10.0	8.0	24	8.5	13.0
27	3.0	5.0	4.0	4.0	3.0	3.0	5.0	5.0	5.0	4.0	6.0	5.0	24	5.0	9.0
28	3.0	4.0	3.0	3.0	5.0	4.0	3.0	5.0	5.0	4.0	6.0	9.0	24	4.2	9.0
29	4.0	4.0	4.0	3.0	4.0	4.0	4.0	9.0	8.0	12.0	12.0	11.0	24	5.6	12.0
30	10.0	10.0	10.0	11.0	11.0	12.0	13.0	13.0	11.0	10.0	15.0	13.0	24	10.3	15.0
31	3.0	5.0	6.0	9.0	13.0	15.0	13.0	12.0	15.0	10.0	6.0	6.0	24	8.0	15.0
NO	31	31	31	31	31	31	31	31	30	30	30	30	740		
MEAN	8.4	8.8	9.5	10.3	9.9	10.1	10.2	10.1	9.5	8.5	9.0	8.7		8.6	
MAX	15.0	16.0	17.0	20.0	20.0	20.0	20.0	16.0	16.0	17.0	17.0	17.0			20.0

AIR QUALITY DATA REPORT

AGENCY: COUNTY STATE: OKLAHOMA PROJECT: POPULATION-ORIENTED SURV.

PARAMETER: WIND SPEED, MS UNITS: MILES PER HOUR MIN DET: .1 SAROAD KEY: 373000110G01

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: MONTH: AUGUST

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH (WIND DATA - SITE 110) YEAR: 1977

KEY-1: 373000110G01177 KEY-2: 080100 KEY-3: 6110111121 AREA: 3000 SITE: 110 UNITS CODE: 12 DECIMAL CODE: 1

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	5.0	4.0	7.0	8.0	7.0	3.0	3.0	3.0	4.0	5.0	6.0	7.0
02	7.0	6.0	6.0	6.0	3.0	7.0	5.0	3.0	4.0	4.0	3.0	3.0
03	4.0	6.0	6.0	7.0	7.0	6.0	5.0	6.0	6.0	5.0	7.0	6.0
04	12.0	13.0	12.0	12.0	12.0	13.0	11.0	10.0	9.0	6.0	10.0	11.0
05	13.0	13.0	13.0	11.0	10.0	8.0	7.0	10.0	9.0	14.0	15.0	14.0
06	14.0	13.0	12.0	11.0	12.0	10.0	12.0	13.0	14.0	15.0	14.0	14.0
07	12.0	12.0	13.0	13.0	11.0	9.0	9.0	12.0	13.0	13.0	12.0	12.0
08	11.0	11.0	12.0	13.0	12.0	11.0	9.0	10.0	12.0	13.0	14.0	14.0
09	8.0	8.0	11.0	11.0	12.0	11.0	8.0	8.0	12.0	13.0	13.0	13.0
10	10.0	9.0	8.0	8.0	9.0	8.0	8.0	6.0	7.0	6.0	3.0	3.0
11	5.0	7.0	6.0	6.0	5.0	7.0	3.0	5.0	7.0	11.0	11.0	10.0
12	6.0	8.0	8.0	8.0	6.0	6.0	7.0	6.0	5.0	6.0	5.0	4.0
13	5.0	5.0	4.0	3.0	3.0	6.0	6.0	7.0	8.0	9.0	9.0	12.0
14	4.0	4.0	4.0	4.0	3.0	3.0	3.0	4.0	5.0	8.0	8.0	8.0
15	3.0	5.0	7.0	5.0	4.0	3.0	3.0	4.0	4.0	4.0	7.0	7.0
16	7.0	8.0	7.0	8.0	9.0	8.0	9.0	10.0	10.0	10.0	6.0	6.0
17	2.0	5.0	3.0	4.0	6.0	8.0	7.0	6.0	2.0	5.0	4.0	8.0
18												12.0
19	4.0	6.0	7.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	4.0
20	5.0	3.0	4.0	4.0	4.0	3.0	3.0	3.0	2.0	3.0	5.0	4.0
21	5.0	5.0	4.0	3.0	4.0	4.0	4.0	3.0	2.0	3.0	3.0	3.0
22	3.0	3.0	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	4.0
23	4.0	4.0	6.0	10.0	7.0	8.0	5.0	7.0	6.0	9.0	9.0	8.0
24	4.0	3.0	4.0	4.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
25	6.0	6.0	8.0	6.0	8.0	10.0	10.0	12.0	14.0	15.0	16.0	15.0
26	12.0	11.0	11.0	12.0	13.0	14.0	13.0	13.0	14.0	16.0	17.0	18.0
27	16.0	16.0	17.0	17.0	18.0	17.0	16.0	15.0	17.0	19.0	22.0	22.0
28	21.0	19.0	18.0	18.0	19.0	19.0	19.0	13.0	12.0	12.0	14.0	12.0
29	7.0	7.0	6.0	5.0	5.0	4.0	5.0	6.0	5.0	5.0	4.0	3.0
30	6.0	6.0	5.0	5.0	5.0	5.0	6.0	6.0	7.0	11.0	11.0	10.0
31	11.0	8.0	8.0	9.0	8.0	8.0	12.0	11.0	8.0	12.0	14.0	15.0
NO	30	30	30	30	30	30	30	30	30	30	30	31
MEAN	7.7	7.7	8.0	8.0	7.8	7.7	7.3	7.4	7.5	8.8	9.2	9.3
MAX	21.0	19.0	18.0	18.0	19.0	19.0	19.0	15.0	17.0	19.0	22.0	22.0

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	8.0	8.0	8.0	8.0	9.0	10.0	10.0	9.0	5.0	5.0	5.0	5.0	24	6.3	10.0
02	4.0	4.0	5.0	4.0	4.0	5.0	10.0	9.0	6.0	6.0	6.0	5.0	24	5.2	10.0
03	6.0	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	12.0	10.0	12.0	24	8.0	12.0
04	13.0	15.0	15.0	15.0	17.0	16.0	15.0	13.0	12.0	13.0	13.0	14.0	24	12.4	17.0
05	16.0	11.0	14.0	16.0	9.0	8.0	13.0	12.0	12.0	12.0	12.0	12.0	24	11.8	16.0
06	13.0	13.0	16.0	16.0	14.0	14.0	13.0	13.0	13.0	13.0	14.0	13.0	24	13.1	15.0
07	13.0	12.0	13.0	14.0	14.0	14.0	15.0	16.0	13.0	13.0	12.0	11.0	24	12.5	16.0
08	14.0	13.0	14.0	14.0	14.0	13.0	14.0	13.0	12.0	12.0	11.0	9.0	24	12.3	16.0
09	13.0	14.0	13.0	13.0	13.0	13.0	13.0	12.0	9.0	9.0	12.0	12.0	24	11.4	14.0
10	4.0	3.0	4.0	10.0	8.0	9.0	15.0	15.0	11.0	8.0	8.0	5.0	24	7.7	15.0
11	8.0	4.0	7.0	10.0	10.0	14.0	13.0	12.0	10.0	8.0	9.0	8.0	24	8.2	14.0
12	3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	6.0	8.0	8.0	6.0	24	5.3	8.0
13	7.0	9.0	5.0	6.0	10.0	6.0	8.0	8.0	6.0	7.0	8.0	6.0	24	6.8	12.0
14	8.0	8.0	7.0	9.0	11.0	9.0	15.0	6.0	12.0	10.0	9.0	7.0	24	7.0	15.0
15	7.0	8.0	7.0	8.0	8.0	9.0	12.0	11.0	11.0	12.0	11.0	11.0	24	7.1	12.0
16	7.0	9.0	9.0	7.0	8.0	3.0	10.0	8.0	6.0	6.0	4.0	3.0	24	7.3	10.0
17	9.0	8.0	8.0	9.0	9.0	10.0							18	6.3	10.0
18	9.0	9.0	8.0	7.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	13	6.6	12.0
19	6.0	7.0	7.0	6.0	6.0	7.0	7.0	6.0	4.0	5.0	3.0	4.0	24	5.5	7.0
20	5.0	5.0	4.0	4.0	6.0	5.0	6.0	6.0	6.0	4.0	5.0	6.0	24	4.8	6.0
21	3.0	3.0	4.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	4.0	24	3.5	5.0
22	5.0	7.0	8.0	7.0	8.0	10.0	11.0	10.0	8.0	10.0	9.0	6.0	24	5.4	11.0
23	5.0	4.0	3.0	3.0	3.0	2.0	3.0	5.0	7.0	4.0	3.0	5.0	24	5.4	10.0
24	8.0	8.0	8.0	7.0	9.0	10.0	10.0	8.0	7.0	7.0	6.0	7.0	24	6.0	10.0
25	15.0	16.0	15.0	16.0	17.0	18.0	14.0	14.0	12.0	12.0	11.0	11.0	24	12.4	16.0
26	19.0	17.0	16.0	16.0	18.0	19.0	16.0	15.0	16.0	18.0	17.0	17.0	24	15.3	19.0
27	22.0	22.0	22.0	21.0	20.0	21.0	20.0	19.0	16.0	15.0	17.0	19.0	24	18.6	22.0
28	9.0	6.0	6.0	5.0	6.0	7.0	5.0	4.0	6.0	7.0	8.0	8.0	24	11.4	21.0
29	2.0	3.0	4.0	2.0	3.0	3.0	3.0	3.0	4.0	3.0	4.0	4.0	24	4.2	7.0
30	12.0	11.0	10.0	10.0	12.0	13.0	12.0	11.0	11.0	10.0	9.0	10.0	24	8.9	13.0
31	15.0	15.0	13.0	14.0	13.0	13.0	14.0	11.0	10.0	8.0	6.0	4.0	24	10.8	15.0
NO	31	31	31	31	31	31	30	30	30	30	30	30	727		
MEAN	9.3	9.2	9.1	9.4	9.7	9.7	10.7	9.7	9.0	8.9	8.6	8.3		8.7	
MAX	22.0	22.0	22.0	21.0	20.0	21.0	20.0	19.0	16.0	18.0	17.0	19.0			22.0

AIR QUALITY DATA REPORT

AGENCY: COUNTY STATE: OKLAHOMA PROJECT: POPULATION-ORIENTED SURV.

PARAMETER: WIND SPEED, MS UNITS: MILES PER HOUR MIN DET: .1 SAROAD KEY: 373000110601

COLLECTION METHOD: INSTRUMENTAL ANALYSIS METHOD: MONTH: SEPTEMBER

SAMPLING INTERVAL: 01 HOURS SITE: TULSA - TULSA PUBLIC HEALTH (WIND DATA - SITE 110) YEAR: 1977

KEY-1: 373000110601177 KEY-2: 090100 KEY-3: 6110111121 AREA: 3000 SITE: 110 UNITS CODE: 12 DECIMAL CODE: 1

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	4.0	5.0	6.0	4.0	3.0	3.0	5.0	8.0	7.0	7.0	5.0	7.0
02	7.0	6.0	5.0	5.0	6.0	6.0	4.0	5.0	5.0	5.0	5.0	6.0
03	4.0	4.0	4.0	4.0	3.0	3.0	4.0	4.0	6.0	7.0	6.0	6.0
04	6.0	5.0	3.0	6.0	5.0	3.0	8.0	8.0	5.0	9.0	9.0	7.0
05												
06										5.0	6.0	7.0
07	4.0	3.0	4.0	4.0	3.0	3.0	4.0	4.0	3.0	4.0	5.0	6.0
08	3.0	3.0	3.0	2.0	2.0	2.0	2.0	3.0	4.0	6.0	9.0	10.0
09	8.0	8.0	7.0	6.0	4.0	6.0	7.0	6.0	4.0	4.0	3.0	3.0
10	7.0	8.0	7.0	6.0	6.0	7.0	8.0	8.0	9.0	8.0	9.0	8.0
11	4.0	4.0	4.0	6.0	9.0	7.0	10.0	12.0	10.0	9.0	11.0	14.0
12												
13	13.0	13.0	12.0	7.0	6.0	5.0	4.0	3.0	5.0	3.0	3.0	3.0
14									13.0	10.0	12.0	13.0
15	6.0	6.0	6.0	7.0	7.0	6.0	5.0	5.0	8.0	4.0	4.0	6.0
16	9.0	8.0	8.0	11.0	9.0	5.0	3.0	4.0	2.0	4.0	7.0	14.0
17	13.0	14.0	13.0	14.0	13.0	13.0	13.0	13.0	14.0	14.0	17.0	16.0
18	19.0	18.0	15.0	15.0	12.0	13.0	14.0	15.0	17.0	17.0	15.0	12.0
19	8.0	11.0	7.0	8.0	9.0	7.0	10.0	10.0				
20	4.0	3.0	3.0	3.0	3.0	4.0	2.0	3.0	3.0	5.0	10.0	8.0
21	16.0	14.0	12.0	12.0	13.0	16.0	15.0	13.0	16.0	17.0	19.0	20.0
22	10.0	7.0	0.0	5.0	8.0	7.0	7.0	7.0	10.0	11.0	13.0	14.0
23	13.0	11.0	11.0	10.0	10.0	12.0	13.0	16.0	15.0	15.0	12.0	12.0
24	18.0	20.0	15.0	7.0	10.0	8.0	7.0	7.0	6.0	5.0	6.0	7.0
25	3.0	3.0	5.0	7.0	7.0	9.0	9.0	8.0	11.0	12.0	9.0	8.0
26	7.0	7.0	6.0	7.0	7.0	6.0	5.0	3.0	3.0	8.0	12.0	13.0
27	10.0	11.0	11.0	10.0	8.0	10.0	13.0	12.0	12.0	10.0	11.0	8.0
28	6.0	7.0	6.0	7.0	7.0	9.0	10.0	11.0	11.0	11.0	13.0	10.0
29	7.0	7.0	7.0	10.0	10.0	10.0	10.0	5.0	6.0	6.0	6.0	6.0
30	7.0	8.0	9.0	11.0	10.0	12.0	12.0	13.0	15.0	17.0	18.0	18.0
NO	26	26	26	26	26	26	26	26	26	27	27	27
MEAN	8.3	8.2	7.3	7.5	7.2	7.4	7.8	7.9	8.3	8.6	9.4	9.7
MAX	19.0	20.0	15.0	15.0	13.0	16.0	15.0	16.0	17.0	17.0	19.0	20.0

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	8.0	8.0	8.0	8.0	9.0	10.0	10.0	9.0	5.0	5.0	5.0	5.0	24	6.3	10.0
02	4.0	4.0	5.0	4.0	4.0	5.0	10.0	9.0	6.0	6.0	6.0	5.0	24	5.2	10.0
03	6.0	10.0	11.0	10.0	10.0	10.0	10.0	10.0	11.0	12.0	10.0	12.0	24	8.0	12.0
04	13.0	15.0	15.0	15.0	17.0	16.0	15.0	13.0	12.0	13.0	13.0	14.0	24	12.4	17.0
05	16.0	11.0	14.0	16.0	9.0	8.0	13.0	12.0	12.0	12.0	12.0	12.0	24	11.8	16.0
06	13.0	13.0	14.0	14.0	14.0	14.0	13.0	13.0	13.0	13.0	14.0	13.0	24	13.1	15.0
07	13.0	12.0	13.0	14.0	14.0	14.0	15.0	16.0	13.0	13.0	12.0	11.0	24	12.5	16.0
08	14.0	13.0	14.0	14.0	14.0	13.0	14.0	13.0	12.0	12.0	11.0	9.0	24	12.3	14.0
09	13.0	14.0	13.0	13.0	13.0	13.0	13.0	12.0	9.0	9.0	12.0	12.0	24	11.4	14.0
10	4.0	3.0	4.0	10.0	8.0	9.0	15.0	15.0	11.0	8.0	8.0	5.0	24	7.7	15.0
11	8.0	4.0	7.0	10.0	10.0	14.0	13.0	12.0	10.0	6.0	9.0	8.0	24	8.2	14.0
12	3.0	3.0	3.0	3.0	3.0	2.0	3.0	3.0	6.0	8.0	8.0	6.0	24	5.3	8.0
13	7.0	9.0	5.0	6.0	10.0	6.0	8.0	8.0	6.0	7.0	8.0	6.0	24	6.8	12.0
14	8.0	8.0	7.0	9.0	11.0	9.0	15.0	6.0	12.0	10.0	9.0	7.0	24	7.0	15.0
15	7.0	8.0	7.0	6.0	8.0	9.0	12.0	11.0	11.0	12.0	11.0	11.0	24	7.1	12.0
16	7.0	9.0	9.0	7.0	8.0	3.0	10.0	8.0	6.0	6.0	4.0	3.0	24	7.3	10.0
17	9.0	8.0	8.0	9.0	9.0	10.0							18	6.3	10.0
18	9.0	9.0	8.0	7.0	4.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0	13	6.6	12.0
19	6.0	7.0	7.0	6.0	6.0	7.0	7.0	6.0	4.0	5.0	3.0	4.0	24	5.5	7.0
20	5.0	5.0	4.0	4.0	6.0	5.0	6.0	6.0	6.0	4.0	5.0	6.0	24	4.8	6.0
21	3.0	3.0	4.0	4.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	4.0	24	3.5	5.0
22	5.0	7.0	8.0	7.0	8.0	10.0	11.0	10.0	8.0	10.0	9.0	6.0	24	8.4	11.0
23	5.0	4.0	3.0	3.0	3.0	2.0	3.0	5.0	7.0	4.0	3.0	5.0	24	5.4	10.0
24	8.0	8.0	8.0	7.0	9.0	10.0	10.0	8.0	7.0	7.0	6.0	7.0	24	6.0	10.0
25	15.0	16.0	15.0	16.0	17.0	18.0	14.0	14.0	12.0	12.0	11.0	11.0	24	12.4	18.0
26	19.0	17.0	16.0	16.0	18.0	19.0	16.0	15.0	16.0	18.0	17.0	17.0	24	15.3	19.0
27	22.0	22.0	22.0	21.0	20.0	21.0	20.0	19.0	16.0	15.0	17.0	19.0	24	18.6	22.0
28	9.0	6.0	4.0	5.0	8.0	7.0	5.0	4.0	6.0	7.0	8.0	8.0	24	11.4	21.0
29	2.0	3.0	4.0	2.0	3.0	3.0	3.0	3.0	4.0	3.0	4.0	4.0	24	4.2	7.0
30	12.0	11.0	10.0	10.0	12.0	13.0	12.0	11.0	11.0	10.0	9.0	10.0	24	8.9	13.0
31	15.0	15.0	13.0	14.0	13.0	13.0	14.0	11.0	10.0	8.0	6.0	6.0	24	10.8	15.0
NO	31	31	31	31	31	31	30	30	30	30	30	30	727		
MEAN	9.3	9.2	9.1	9.4	9.7	9.7	10.7	9.7	9.0	8.9	8.6	8.3		8.7	
MAX	22.0	22.0	22.0	21.0	20.0	21.0	20.0	19.0	16.0	18.0	17.0	19.0			22.0

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

1-HOUR DATA LISTING

WIND SPEED
AIRFLOW
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A051

JUL 1977

DAY	12	1	2	3	4	AM 5	6	7	8	9	10	11	12	1	2	3	4	PM 5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5																										0
6	2.4	2.5	2.3	4.2	3.3	2.4	4.1	8.2	10.9	10.1	10.1	10.1	11.0	11.9	11.5	12.2	12.5	11.2	7.5	5.2	5.0	3.1	2.5	3.1	7.0	24
7	2.9	2.9	3.9	4.9	3.8	5.3	6.6	9.3	10.0																5.5	9
8																									3.5	8
9	1.1	1.1	1.5	3.8	3.1	1.9	3.0	4.2	4.4	5.4	6.2	5.2	4.7	5.3	6.2	9.2	5.9	5.9	5.6	4.2	3.0	.9	1.0	1.3	4.2	24
10	1.0	1.0	1.0	1.0	2.0	2.0	2.5	5.0	5.0	5.0	5.0	5.0	8.0	9.0	9.0	9.0	7.3	6.7	6.7	7.3	1.8	2.3	3.2	1.0	5.2	24
11	8.0	7.0	6.0	6.0	8.0	8.0	9.0	13.0	15.0	15.0	16.0	10.0	14.0	16.0	18.0	19.0	9.0	9.0	8.0	5.0	5.0	5.5	5.5	7.0	12.1	24
12	8.0	8.0	7.0	7.0	8.0	10.0	12.0	14.0	14.0	13.0	13.0	11.0	8.0	6.0	6.0	8.0	20.0	18.0	18.0	13.0	11.0	11.0	9.0	8.0	9.2	24
13	3.0	2.0	2.5	3.0	4.0	4.0	5.0	6.0	9.0	1.0	9.0	10.0	12.0	12.0	13.0	14.0	10.0	12.0	13.0	10.0	8.0	6.0	4.0	5.0	6.9	24
14	2.5	3.0	3.0	4.0	4.0	1.0	3.0	6.0	9.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0	9.0	9.0	9.0	4.0	5.0	4.0	2.5	3.0	6.2	24
15	2.0	1.0	1.5	1.8	1.8	1.9	2.0	5.0	8.0	7.0	9.0	9.0	8.8	7.3	8.7	9.3	7.8	5.0	2.9	2.0	1.4	1.3	1.7	2.3	4.5	24
16	2.3	2.9	3.7	2.9	2.8	1.5	3.2	7.0	8.7																3.9	9
17																										0
18																										0
19	2.5	2.0	2.6	3.0	3.7	3.8	4.0	7.6	9.0	9.5	10.7	12.0	12.7	12.0	11.0	12.0	12.0	10.5	9.2	5.0	3.2	2.5	2.5	2.8	8.3	13
20	4.1	4.0	3.2	2.9	2.1	2.4	4.0	6.9	9.0	7.9	7.1	7.1	8.0	8.0	7.9	6.1	8.2	11.1	11.0	9.2	6.2	3.9	1.9	2.0	6.0	24
21	2.5	3.9	4.9	3.9	3.6	1.7	2.3	6.0	5.9	4.9	4.3	4.0	4.8	7.6	6.6	3.0	9.2	9.1	2.4	2.5	.9	2.9	.7	.8	3.9	24
22	1.1	1.8	4.0	3.9	5.0	3.0	2.9	4.3	6.0	5.8	5.0	4.0	3.4	3.8	3.1	3.3	5.6	7.9	7.9	6.2	2.9	2.1	2.8	2.3	4.1	24
23	2.0	1.0	.9	.4	1.2	1.3	1.9	2.2	3.0	3.9	5.9	5.2	5.0	5.0	5.8	6.2	5.1	4.2	3.7	4.4	6.7	7.8	4.5	2.9	3.7	24
24	3.4	3.4	3.1	3.8	4.0	4.1	5.8	9.3	10.3	12.0	11.6	8.7	9.7	9.7	10.3	9.8	10.2	9.0	8.9	4.8	3.4	3.7	8.6	6.1	7.2	24
25	6.3	5.7	7.0	6.2	6.0	5.8	7.5	7.8	9.2	8.3	7.0	6.9	8.0	8.1	6.9	7.5	7.7	9.0	10.0	8.8	7.2	8.1	9.5	9.3	7.7	24
26	8.1	7.9	7.0	6.2	5.1	5.2	5.8	7.8	6.5	3.9	5.1	6.1	5.9	8.8	8.0	4.8	6.0	5.3	7.0	6.8	8.7	8.3	7.0	5.0	6.5	24
27	5.9	6.1	5.0	5.0	5.7	4.4	4.2	5.0	3.9	4.5	3.5	4.0	5.1	5.5	6.0	5.5	4.9	5.8	5.7	5.5	3.9	2.7	2.2	2.0	4.7	24
28	2.1	1.0	1.1	.9	1.9	.4	1.1	2.2	2.3	4.8	5.9	5.1	4.2	5.0	5.5	4.0	4.7	4.3	5.0	2.7	2.0	4.2	6.4	3.7	3.4	24
29	1.5	2.0	3.0	3.5	1.7	2.5	2.7	4.0	4.5	5.5	5.0	4.0	4.5	3.5	3.2	3.0	3.0	4.0	6.0	3.0	3.0	4.0	3.2	4.5	3.5	24
30	3.5	3.8	5.0	5.5	6.0	6.0	7.0	8.0	7.0	7.0	8.5	9.0	9.0	9.5	9.5	12.0	13.0	13.0	12.0	7.0	12.5	11.0	5.0	10.0	8.3	24
31	11.5	8.5	5.0	3.0	2.5	2.5	2.0	3.0	4.5	4.5	4.5	6.0	7.2	8.0	9.0	9.0	3.5	5.0	6.5	3.8	3.2	2.7	2.2	2.5	5.1	24
AVG	3.8	3.6	3.7	3.8	3.9	3.5	4.4	6.6	7.4	7.0	7.5	7.5	8.0	8.4	8.5	8.4	8.7	8.4	8.0	5.4	4.9	4.7	4.1	4.0	6.0	
NO.	23	23	23	23	23	23	23	23	23	21	21	22	22	22	22	22	23	23	23	23	23	23	23	23		543
MAX	11.5	8.5	7.0	7.0	8.0	10.0	12.0	14.0	15.0	15.0	16.0	12.0	14.0	16.0	18.0	19.0	20.0	18.0	18.0	13.0	12.5	11.0	9.5	10.0	20.0	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A051)

WIND SPEED
611011
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

AUG 1977

DAY	12	1	2	3	4	AM 5	6	7	8	9	10	11	12	1	2	3	4	PM 5	6	7	8	9	10	11	DAILY MEAN	NO.
1	2.5	3.0	2.8	2.9	3.0	1.5	.9	3.2	4.2	6.1	4.5	7.5	5.5	5.3	5.8	7.0	6.5	6.7	7.7	4.2	3.2	2.0	2.5	2.0	4.3	24
2	2.0	1.0	1.0	4.0	5.2	3.0	1.8	2.7	2.6	4.8	7.0	6.0	5.6	5.0	5.0	4.2	4.0	4.2	7.7	5.0	3.0	2.0	1.1	1.7	3.7	24
3	2.5	2.7	3.2	3.1	3.0	.0	1.0	2.5	4.5	5.3	9.7	11.0	11.8	11.0	10.5	8.5	9.2	9.3	10.5	7.2	9.1	5.0	6.2	6.7	6.1	24
4	10.0	12.0	12.2	12.5	10.0	8.8	4.7	4.8	5.3	5.7	9.7	10.5	12.2	14.0	16.0	17.0	16.0	16.0	14.0	11.0	9.0	10.0	12.0	13.0	11.2	24
5	12.0	11.7	8.6	6.5	2.0	1.2	1.0	4.8	11.3	14.7	17.0	15.8	15.2	13.8	13.0	12.2	14.0	13.0	10.2	9.2	8.9	10.0	10.2	12.0	10.4	24
6	10.4	9.4	7.3	7.4	5.7	5.7	5.5	10.7	12.0	9.0	13.3	12.5	12.0	13.3	11.7	11.2	12.4	12.5	13.2	11.7	9.0	8.8	8.1	8.3	10.1	24
7	7.7	7.0	9.0	7.9	5.8	5.7	8.3	11.3	13.0	13.7	13.0	14.2	13.0	12.6	11.4	14.0	15.0	14.6	14.1	11.2	9.5	8.3	8.3	8.2	10.7	24
8	6.2	6.1	6.0	6.7	4.3	4.6	4.2	10.5	12.3	14.1	14.9	15.7	13.7	13.7	14.1	14.5	14.2	13.5	13.1	10.3	8.2	7.8	6.9	8.0	10.2	24
9	9.0	7.5	6.2	5.0	7.3	5.9	6.9	11.5	13.6	13.8	13.6	15.5	13.4	14.5	13.2	12.8	11.5	11.0	9.3	8.0	3.4	5.0	4.5	4.0	9.4	24
10	4.4	4.6	3.5	4.2	3.1	3.7	4.3	4.7	4.9	6.1	6.2	6.2	5.5	4.5	6.2	6.1	11.0	13.5	8.8	11.9	8.2	4.0	2.1	1.8	5.8	24
11	1.3	1.2	2.9	4.3	2.5	4.7	7.8	8.1	9.0	10.0	9.1	7.2	6.7	7.4	9.2	9.4	9.5	10.2	8.1	7.4	6.7	6.7	5.7	4.8	6.6	24
12	5.3	4.9	4.1	3.9	4.2	4.0	4.9	5.5	4.2	3.8	4.5	3.8	3.1	3.5	3.8	4.5	4.1	3.2	3.9	2.5	2.3	1.2	1.5	.9	3.4	24
13	.5	.9	.7	1.0	.8	.7	2.2	4.3	7.0	8.5	8.4	2.9	3.2	4.0	4.7	4.8	4.5	3.4	4.8	4.7	4.8	1.6	1.4	1.4	3.2	24
14	1.5	1.7	1.1	1.0	1.5	1.1	2.1	2.6	5.2	5.3	4.7	8.2	7.7	6.2	5.0	6.1	13.2	8.9	3.8	9.2	5.5	3.7	1.2	2.9	4.6	24
15	1.3	1.0	1.3	.8	1.4	1.7	2.4	3.0	4.7	5.8	5.8	6.5	6.9	7.3	7.5	7.9	7.3	9.0	7.5	4.5	4.6	4.9	5.7	3.4	4.7	24
16	3.4	3.3	3.8	4.4	4.8	5.4	5.5	6.9	6.0	3.6	4.6	8.7	7.9	7.1	6.9	6.3	6.0	5.2	6.8	4.9	3.2	2.0	2.2	2.5	5.2	24
17	2.1	3.8	4.7	6.2	6.5	4.6	4.6	3.8	4.6	6.0	7.2	7.0	7.8	7.5	7.9	8.2	7.4	6.0	5.9	2.5	1.5	1.2	1.9	2.7	5.1	24
18	2.0	2.9	2.0	1.9	1.9	1.8	2.6	3.8	4.9	7.5	7.9	7.8	7.5	5.8	5.2	4.9	4.5	4.0	3.9	4.0	5.0	2.3	4.2	5.2	4.3	24
19	4.7	4.5	4.1	3.9	4.0	4.8	3.9	4.8	5.8	2.9	4.2	5.2	5.5	6.4	6.3	4.7	5.9	5.1	3.2	4.0	2.9	2.3	2.3	1.5	4.5	24
20	1.6	1.1	.9	1.0	1.8	1.5	1.4	3.8	6.0	6.0	8.2	4.9	4.5	4.1	4.0	4.6	5.1	5.5	4.5	4.3	3.0	3.0	2.7	3.1	3.4	24
21	3.0	3.4	2.9	1.8	2.2	1.0	1.2	2.2	5.0	4.1	5.0	4.0	4.1	3.9	4.0	3.9	3.0	3.0	2.0	.2	.1	.0	.2	.8	2.5	24
22	.3	.4	.5	.4	.6	1.0	1.6	2.2	2.5	3.4	4.9	4.0	7.7	4.0	6.1	6.9	7.7	8.5	6.8	5.7	5.8	4.5	3.0	.9	4.2	24
23	6.5	4.9	11.8	5.8	1.9	.7	.9	5.1	4.6	5.0	3.9	3.8	2.9	3.0	3.5	3.8	2.3	3.2	3.5	2.1	1.6	.9	1.3	2.5	3.6	24
24	3.8	3.8	3.8	4.1	4.6	4.5	4.9	4.3	5.7	6.0	5.9	6.3	6.1	6.4	6.4	7.0	7.9	7.4	5.5	4.2	3.9	4.4	3.1	1.6	5.1	24
25	1.5	.8	2.1	5.1	4.1	3.9	5.4	8.0	11.4	13.4	13.5	12.2	10.8	13.3	13.8	13.8	13.8	13.0	11.0	7.7	8.1	7.3	7.3	7.1	8.4	24
26	7.9	8.0	7.9	7.9	9.0	8.7	9.2	10.1	13.5	14.5	16.0	17.4	17.2	17.2	15.8	15.1	16.0	14.8	13.5	11.5	10.2	11.4	10.0	11.9	12.3	24
27	12.9	13.9	13.2	13.2	13.0	14.1	14.0	15.2	18.1	18.2	19.8	18.5	19.6	18.5	19.5	19.1	19.2	17.0	14.2	11.2	7.6	11.0	15.3	18.3	15.6	24
28	16.1	15.0	16.3	16.0	11.3	9.3	7.5	7.5	15.0	11.0	7.8	8.3	8.7	5.8	4.3	4.5	4.8	3.8	3.4	8.0	5.5	4.4	5.9	5.3	8.3	24
29	4.2	4.7	4.2	5.0	4.5	4.8	4.4	5.2	4.4	4.0	4.0	3.7	3.9	3.7	3.5	3.1	3.4	3.2	2.8	1.9	1.1	1.1	1.1	.8	3.9	24
30	1.2	1.2	.9	.2	1.6	3.5	3.8	6.4	9.2	12.0	13.1	12.0	10.3	11.5	11.6	10.8	11.5	10.1	8.0	6.0	5.8	4.0	3.5	2.8	6.7	24
31	2.8	2.3	6.9	8.6	6.0	7.1	6.4	9.1	12.4	14.7	13.5	13.1	12.5	12.2	12.5	11.0	11.3	10.0	7.9	6.0	3.9	.9	.2	.9	8.0	24
AVG	4.9	4.9	5.0	5.0	4.4	4.2	4.5	6.1	7.8	8.3	9.0	9.1	8.6	8.6	8.7	8.7	9.1	8.7	7.7	6.5	5.1	4.9	4.6	4.7	6.6	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		744
MAX	16.1	15.0	16.3	16.0	13.0	14.1	14.0	15.2	18.1	18.2	19.8	18.5	19.6	18.5	19.5	19.1	19.2	17.0	14.2	11.2	10.2	11.4	15.3	18.3	19.8	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260903A05)

WIND SPEED
AIRFLOW
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	.3	.9	1.3	4.2	8.0	6.3	5.2	5.0	7.7	5.3	4.8	6.7	10.5	10.1	10.2	8.6	8.1	8.5	4.6	3.8	2.8	3.0	3.0	3.0	5.5	24
2	2.0	2.3	1.0	1.7	.1	.6	.9	3.1	4.8	5.8	7.7	7.5	7.9	7.3	7.5	6.6	6.0	5.1	3.0	1.9	2.8	2.3	1.5	.8	3.7	24
3	.2	.3	.6	.9	.6	.2	.3	.8	6.0	5.1	4.0	5.1	5.2	5.0	4.7	6.2	5.5	5.8	4.1	3.5	4.6	4.9	7.5	7.1	3.3	24
4	.4	.2	.3	.3	.6	.6	.9	1.1	6.1	8.2	4.6	5.1	4.0	3.9	3.9	4.4	4.0	2.8	3.0	4.3	3.0	3.2	3.1	3.1	3.0	24
5	4.4	4.1	2.8	3.2	2.5	2.2	2.9	2.9	3.4	3.8	4.7	4.8	4.6	5.9	7.2	6.8	5.1	4.5	2.7	1.7	2.2	2.6	1.1	1.1	3.6	24
6	1.0	1.5	1.5	1.3	1.7	2.2	2.8	3.7	5.2	5.7	4.8	5.2	4.7	5.2	4.2	5.0	4.9	4.1	2.1	1.6	1.5	1.7	2.1	1.5	3.1	24
7	1.2	1.4	1.5	1.6	1.7	2.0	1.2	2.7	3.7	4.2	6.0	5.6	6.0	5.5	5.6	4.7	4.4	3.6	1.9	.4	.7	.2	.3	.2	2.7	24
8	.1	.5	.7	.5	.2	.1	.2	1.5	4.9	6.4	6.7	8.0	7.7	7.2	6.7	7.0	7.3	6.8	6.0	5.3	5.8	6.0	5.7	3.9	4.3	24
9	3.8	2.8	2.0	2.9	4.1	3.0	2.9	2.9	2.2	2.5	4.0	7.4	9.1	10.2	9.3	10.2	8.9	8.1	7.0	5.9	4.7	4.1	3.3	3.0	5.1	24
10	4.3	4.5	3.7	4.4	4.2	3.9	3.1	4.1	4.2	4.6	6.9	8.1	7.6	7.3	6.2	6.5	5.8	6.6	3.1	3.7	3.6	2.9	2.7	2.9	4.7	24
11	1.8	1.4	1.8	2.4	2.5	4.0	4.0	4.1	6.5	9.0	7.7	8.1	7.2	10.1	10.7	10.3	11.4	12.0	9.2	5.8	4.2	5.3	6.2	7.1	6.4	24
12	8.5	8.3	9.0	8.9	10.3	10.3	10.2	13.2	14.4	15.7	15.6	15.7	15.1	14.5	13.0	12.1	10.2	12.2	6.5	9.3	9.2	7.0	6.5	10.1	11.1	24
13	11.0	5.7	4.1	5.8	3.0	1.9	1.5	2.7	2.1	1.5	3.0	8.7	8.8	8.7	9.1	8.9	10.0	9.7	4.3	6.0	5.5	5.3	4.6	7.7	6.0	24
14	8.1	8.2	8.4	7.2	7.7	7.1	6.7	7.1	7.2	6.8	7.0	7.9	6.9	7.5	7.4	8.0	6.7	7.2	7.7	8.1	8.0	6.8	5.0	3.7	7.2	24
15	2.4	3.3	3.2	2.9	3.2	3.3	2.8	1.7	3.1	3.0	3.0	2.8	3.5	3.6	3.2	5.1	6.9	6.2	3.8	3.7	3.8	3.6	4.8	5.8	3.7	24
16	3.3	5.0	4.1	3.9	5.6	2.9	2.7	7.0	10.0	12.7	13.9	12.7	15.0	17.1	16.3	16.5	15.3	11.9	7.9	5.1	5.5	5.1	8.6	10.0	9.1	24
17	10.9	10.3	8.4	8.2	10.7	10.7	11.5	13.4	14.5	15.8	16.1	17.0	17.0	19.0	16.9	15.9	15.6	13.7	10.8	10.5	9.8	9.7	10.5	7.4	12.4	24
18	4.2	4.4	4.6	5.5	6.5	8.7	7.2	9.6	11.1	9.6	11.0	9.5	8.3	8.0	6.9	6.3	4.9	5.1	4.0	3.1	2.9	3.0	2.3	2.3	6.2	24
19	3.4	2.5	1.9	2.5	2.0	1.5	2.4	5.9	9.3	9.0	6.6	5.4	4.4	5.1	5.0	4.7	4.1	3.2	1.2	.8	.3	.6	.2	.4	3.4	24
20	.5	.5	.9	.7	.4	.7	.6	1.3	5.0	8.0	7.5	8.3	6.0	8.5	9.4	9.2	9.8	7.8	5.9	4.6	2.5	4.4	4.5	5.8	4.7	24
21	8.3	11.7	11.2	9.3	10.1	11.4	12.8	12.3	13.6	15.7	17.5	16.8	18.1	16.1	16.7	15.8	14.0	12.6	10.7	9.9	10.7	8.6	7.1	7.1	12.4	24
22	7.5	8.8	5.8	2.8	3.2	2.5	2.0	4.5	9.0	10.1	9.9	10.0	8.0	8.1	10.9	13.0	10.7	5.4	4.8	5.9	6.3	7.5	8.9	10.6	7.3	24
23	9.2	8.1	7.2	8.4	8.3	8.5	11.3	10.1	11.2	11.9	10.8	15.5	15.2	14.7	15.1	13.7	12.9	13.0	11.1	9.1	7.1	9.0	13.1	9.5	11.0	24
24	5.1	5.1	5.2	4.6	4.2	3.5	2.8	2.0	3.7	4.3	4.3	4.2	3.6	4.2	4.6	4.8	5.3	2.6	.8	.2	.9	.7	.9	1.0	3.3	24
25	.9	1.1	1.7	1.3	1.6	1.3	1.0	1.5	2.5	5.1	8.0	2.9	2.3	3.5	9.1	3.6	2.2	1.8	1.0	2.0	2.9	2.0	2.5	2.7	2.3	24
26	2.8	3.0	3.0	2.2	3.0	2.2	2.1	1.8	4.7	9.4	8.5	9.8	9.6	11.6	12.3	9.9	9.1	6.5	6.0	4.2	4.5	3.6	3.8	5.3	5.8	24
27	4.2	3.7	2.1	4.4	4.9	7.1	6.4	6.3	6.3	6.3	4.4	4.6	6.7	6.7	6.4	6.7	7.4	6.7	6.0	5.7	6.4	5.5	4.8	3.5	5.7	24
28	4.0	3.9	3.2	4.1	4.2	4.3	3.9	3.2	3.6	3.4	4.4	6.0	5.8	3.6	4.8	6.5	7.6	8.2	7.5	6.7	6.7	6.9	4.3	5.4	5.2	24
29	6.6	8.0	5.6	5.9	6.1	4.1	3.4	2.8	3.2	4.0	3.8	4.1	3.7	4.6	4.7	5.7	5.8	5.0	3.9	4.1	4.0	3.3	3.7	2.9	4.5	24
30	3.1	4.6	4.0	4.4	4.9	5.6	6.0	9.0	11.2	12.6	13.0	14.8	14.2	12.5	13.2	13.0	13.2	13.5	13.1	12.7	14.1	13.7	12.0	12.3	10.4	24
AVG	4.1	4.2	3.7	3.9	4.2	4.1	4.1	4.9	6.7	7.5	7.6	8.2	8.2	8.6	8.6	8.5	8.1	7.2	5.5	4.9	4.9	4.7	4.7	4.7	5.9	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30		720
MAX	11.0	11.7	11.2	9.3	10.7	11.4	12.8	13.4	14.5	15.8	17.5	17.0	18.1	19.0	16.7	16.5	15.6	13.7	13.1	12.7	14.1	13.7	13.1	12.3	19.0	

D32078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A051)

WIND SPEED
AI10111
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

JUL 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1																									0
2																									0
3																									0
4																									0
5																									0
6																									0
7																									0
8																									0
9																									0
10																									0
11																									0
12																									0
13																									0
14																									0
15																									0
16																									0
17													6.0	8.0	7.0	7.0	7.0	4.0	3.0	1.0	3.0	3.0	1.0		4.5 11
18	2.0	1.0	3.0	1.0	1.0	.0	1.0	2.0	4.0	5.0	7.0	6.0	8.0	8.0	8.0	8.0	5.0	6.0	6.0	4.0	2.0	1.0	.0	.0	1.0	3.3 24
19	2.0	1.0	.0	.0	1.0	.0	1.0	3.0	4.0	5.0	7.0	7.0	8.0	8.0	8.0	10.0	8.0	5.0	4.0	3.0	6.0	6.0	5.0	4.0	4.4 24
20	3.0	.0	.0	.0	1.0	.0	3.0	5.0	6.0	4.0	5.0	4.0	6.0	5.0	5.0	5.0	9.0	8.0	9.0	6.0	6.0	3.0	1.0	1.0	4.0 24
21	2.0	3.0	1.0	.0	.0	1.0	4.0	5.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0	3.0	1.0	1.0	.0	1.0	1.0	2.0	1.0	2.4 24
22	1.0	2.0	6.0	4.0	4.0	2.0	3.0	4.0	5.0	4.0	4.0	3.0	4.0	4.0	4.0	4.0	6.0	6.0	4.0	3.0	3.0	3.0	1.0	2.0	3.6 24
23	1.0	.0	2.0	2.0	1.0	1.0	1.0	1.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	3.0	3.0	4.0	4.0	4.0	3.0	3.0	2.5 24
24	1.0	2.0	3.0	1.0	1.0	2.0	2.0	2.0	5.0	4.0	4.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	2.0	2.0	4.0	5.0	3.3 24
25	5.0	4.0	4.0	4.0	3.0	2.0	1.0	1.0	2.0	2.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	6.0	7.0	8.0	7.0	6.0	5.0	5.0	4.1 24
26	7.0	8.0	8.0	4.0	3.0	4.0	3.0	3.0	4.0	6.0	7.0	4.0	4.0	4.0	6.0	7.0	4.0	3.0	4.0	4.0	6.0	7.0	8.0	7.0	5.2 24
27	6.0	4.0	5.0	5.0	5.0	4.0	4.0	3.0	3.0	4.0	7.0	3.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	2.0	1.0	.0	3.5 24
28	1.0	.0	.0	1.0	1.0	.0	.0	1.0	3.0	4.0	3.0	3.0	3.0	4.0	5.0	5.0	4.0	5.0	4.0	3.0	4.0	1.0	1.0	3.0	2.5 24
29	1.0	1.0	1.0	1.0	.0	3.0	1.0	.0	.0	2.0	3.0	2.0	3.0	3.0	3.0	4.0	3.0	3.0	4.0	3.0	3.0	1.0	1.0	3.0	2.0 24
30	5.0	4.0		2.0	1.0	.0	1.0	1.0	1.0	4.0	4.0	5.0	4.0	6.0	6.0	5.0	6.0	8.0	4.0	5.0	10.0	8.0	2.0	8.0	4.3 23
31	5.0	3.0	1.0	1.0	2.0	2.0	2.0	3.0	1.0	1.0	2.0	3.0	3.0	4.0	6.0	5.0	4.0		7.0	4.0	2.0	3.0	2.0	2.0	3.0 23
AVG	3.0	2.4	2.6	1.9	1.7	1.5	1.9	2.4	3.2	3.6	4.1	3.9	4.4	4.8	5.1	5.1	5.1	4.4	4.3	3.5	4.1	3.3	2.6	3.2	3.5
NO.	14	14	13	14	14	14	14	14	14	14	14	14	15	15	15	15	15	14	15	15	15	15	15	14	345
MAX	7.0	8.0	8.0	5.0	5.0	4.0	4.0	5.0	6.0	6.0	7.0	7.0	8.0	8.0	8.0	10.0	9.0	8.0	9.0	8.0	10.0	8.0	8.0	8.0	10.0

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992405)

WIND SPEED
AIIOIII
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

AUG 1977

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	3.0	4.0	4.0	4.0	2.0	3.0	3.0	3.0	4.0	4.0	3.0	5.0	3.0	5.0	6.0	5.0	5.0	5.0	4.0	1.0	.0	.0	.0	.0	3.2	24
2	.0	1.0	1.0	4.0	6.0	2.0	1.0	3.0	2.0	2.0	3.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	6.0	2.0	1.0	.0	.0	1.0	2.5	24
3	.0	1.0	.0	1.0	1.0	.0	.0	.0	.0	7.0	5.0	6.0	7.0	6.0	6.0	6.0	6.0	7.0	6.0	4.0	4.0	5.0	5.0	4.0	3.6	24
4	2.0	3.0	6.0	6.0	7.0	7.0	7.0	2.0	2.0	2.0	3.0	7.0	9.0	1.0	9.0	10.0	10.0	10.0	10.0	9.0	8.0	7.0	7.0	6.0	6.2	24
5	7.0	6.0	6.0	5.0	4.0	1.0	1.0	.0	3.0	8.0	9.0	10.0	7.0	8.0	8.0	10.0	9.0	8.0	9.0	7.0	6.0	5.0	6.0	4.0	6.1	24
6	5.0	7.0	7.0	4.0	4.0	4.0	3.0	3.0	6.0	5.0	8.0	11.0	7.0	8.0	7.0	7.0	9.0	8.0	8.0	6.0	6.0	5.0	5.0	6.0	6.1	24
7	6.0	7.0	6.0	4.0	4.0	4.0	5.0	4.0	5.0	5.0	5.0	7.0	8.0	8.0	8.0	9.0	9.0	8.0	6.0	5.0	4.0	4.0	4.0	5.0	5.8	24
8	5.0	4.0	5.0	4.0	4.0	4.0	5.0	4.0	5.0	5.0	6.0	7.0	6.0	6.0	9.0	9.0	9.0	8.0	8.0	5.0	4.0	4.0	3.0	4.0	5.5	24
9	6.0	6.0	5.0	3.0	3.0	4.0	3.0	5.0	5.0	6.0	6.0	6.0	6.0	8.0	8.0	7.0	5.0	5.0	5.0	5.0	3.0	3.0	4.0	3.0	5.0	24
10	4.0	3.0	2.0	1.0	1.0	.0	.0	1.0	3.0	4.0	4.0	4.0	5.0	3.0	4.0	5.0	7.0	10.0	7.0	8.0	4.0	1.0	1.0	1.0	3.5	24
11	1.0	1.0	1.0	1.0	3.0	3.0	6.0	9.0	11.0	9.0	6.0	6.0	5.0	6.0	9.0	10.0	10.0	9.0	7.0	7.0	7.0	6.0	6.0	4.0	6.0	24
12	5.0	5.0	4.0	4.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0	4.0	3.0	3.0	4.0	5.0	5.0	3.0	3.0	1.0	1.0	1.0	1.0	3.6	24
13	.0	.0	.0	.0	.0	1.0	1.0	2.0	5.0	5.0	1.0	3.0	3.0	3.0	4.0	5.0	4.0	5.0	4.0	4.0	3.0	.0	.0	.0	2.2	24
14	.0	.0	.0	.0	.0	.0	1.0	2.0	5.0	5.0	6.0	6.0	5.0	6.0	5.0	7.0	9.0	5.0	5.0	11.0	5.0	4.0	2.0	2.0	3.7	24
15	2.0	.5	.5	.5	1.0	2.0	.0	1.0	3.5	4.5	4.5	5.5	5.5	6.5	5.5	5.5	6.5	7.0	5.0	4.0	3.5	3.5	3.5	3.5	3.5	24
16	2.0	1.5	1.5	2.0	1.5	1.5	1.0	3.0	3.5																1.9	9
17																										0
18										5.5	6.0	6.0	6.0	5.0	3.5	3.0	3.0	3.0	2.0	2.0	2.5	2.5	2.5	2.5	3.7	15
19	1.5	2.0	3.5	3.5	3.0	3.5	2.0	1.5	2.5	3.0	4.5	4.5	3.5	2.5	4.0	4.5	4.0	3.0	2.0	1.0	.0	1.0	1.0	.0	2.5	24
20	.5	.0	.0	.0	.5	.0	.0	.5	2.0	3.0	3.5	2.5	3.0	2.5	3.5	3.5	3.5	3.5	3.5	4.0	3.0	.5	.0	.5	1.8	24
21	.0	.0	.5	.5	.5	.5	1.0	1.0	1.0	2.0	2.0	2.0	3.0	3.0	2.5	1.5	2.0	1.5	.5	.5	.5	.0	.0	.0	1.1	24
22	.5	.5	.1	.1	.0	.1	.0	3.0	1.5	3.0	4.5	5.5	4.0	5.0	4.5	5.0	5.5	5.0	3.5	2.0	3.5	3.0	.5	1.0	2.6	24
23	6.5	3.5	10.0	1.5	.5	.5	.5	3.0	4.0	3.0	3.0	3.0	3.0	2.5	3.0	2.5	2.0	2.5	3.5	1.0	.5	.5	1.0	1.5	2.6	24
24	4.0	4.0	4.0	4.0	4.0	4.5	3.5	3.0	3.5	3.5	4.0	4.0	4.5	4.5	4.5	4.5	4.5	5.5	5.0	3.5	1.5	2.0	.5	.5	3.6	24
25	1.0	.5	.5	.5	.5	3.0	3.5	4.0	5.0	8.0	10.0	10.0	8.5	8.5	9.5	9.5	9.5	10.5	10.5	9.5	7.0	6.0	6.5	5.0	6.1	24
26	5.0	4.0	4.5	4.0	5.0	4.5	5.0	5.5	4.5	6.0	7.0	7.5	8.5	10.0	8.0		11.0	10.5	9.0	8.0	7.0	6.5	6.0	6.0	6.7	23
27	7.0	7.0	8.0	8.0	8.0	6.5	6.5	7.5	9.0	11.0	12.5	11.0	12.0	11.5	10.5	10.5	11.0	11.5	9.0	7.0	6.5	6.0	9.0	8.0	8.9	24
28	10.0	9.5	8.0	9.0	9.0	7.0	9.5	3.5	3.5	12.5	10.5	6.5	5.5	5.0	4.5	4.0	2.5	2.0	3.0	2.5	3.0	3.5	3.5	3.5	5.7	24
29	5.5	4.3	3.2	2.7	3.1	3.4	3.7	4.0	3.6	3.9	4.6	3.8	3.9	3.1	2.7	2.9	2.0	2.0	.9	.3	.2	.5	.9	1.0	2.8	24
30	.4	.2	.1	.4	.1	.1	3.4	5.1	5.4	7.2	7.5	6.0	6.0	7.3	7.9	8.8	7.5	7.3	6.2	5.1	5.0	3.5	3.5	4.2	4.5	24
31	5.4	3.3	3.8	4.0	4.0	2.0	3.0	3.1	7.0	7.0	6.0	6.6	7.4	8.4	8.4	7.4	6.7	7.2	5.8	4.0	4.3	2.2	.0	.2	4.9	24
AVG	3.9	3.1	3.3	2.8	2.9	2.6	2.7	3.1	4.1	5.3	5.3	5.9	5.6	5.5	5.9	6.1	6.2	6.1	5.4	4.5	3.6	3.0	2.8	2.7	4.2	
NO.	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	28	29	29	29	29	29	29	29	29		695
MAX	10.0	9.5	10.0	9.0	9.0	7.0	9.5	9.0	11.0	12.5	12.5	11.0	12.0	11.5	10.5	10.5	11.0	11.5	10.5	11.0	8.0	7.0	9.0	8.0	12.5	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A05)

SEP 1977

1-HOUR DATA LISTING

WIND SPEED
AIRFLOW
CONCENTRATION IN MILES/HOUR
INSTRUMENTAL SPOT READING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	.1	.2	1.2	1.2	5.6	7.3	4.2	1.8	2.5	4.4	6.0	3.1	4.9	6.3	5.7	5.6	4.4	5.8	5.8	2.8	3.0	1.0	1.0	1.6	3.6	24
2	.1	.0	.0	.1	.3	.5	.3	.6	.2	1.2	3.0	3.2	4.0	3.7	5.2	4.8	4.3	3.7	.9	.3	.1	.1	.0	.0	1.5	24
3	.8	.8	1.0	.8	.5	.3	.2	1.3	4.0	3.7	3.3	2.7	3.7	2.0	1.9	6.8	3.1	1.6	1.0	1.6	1.2	.8	1.5	.8	1.9	24
4	.1	.1	.2	.1	.0	1.0	.5	2.0	3.2	4.5	3.1	3.8	3.5	2.5	6.5	5.6	6.5	4.1	2.0	3.5	2.5	2.1	2.2	1.9	2.6	24
5	4.0	5.5	2.6	.5	2.7	3.2	2.4	1.6	3.1	3.3	3.5	4.3	4.8	4.8	6.2	7.0	5.3	3.7	2.0	1.0	1.0	1.9	2.8	2.2	3.3	24
6	3.0	2.3	2.6	3.4	3.6	3.2	3.7	3.6	4.3	4.8	3.8	3.8	4.4	5.8	5.2	5.0	5.0	5.0	4.3	2.2	2.0	2.6	2.0	1.4	3.4	24
7	1.0	.8	1.6	2.0	2.0	2.0	2.6	2.5	2.8	3.0	4.3	3.8	4.3	5.0	4.0	4.8	3.9	3.3	2.9	1.2	.0	.0	.1	.2	2.4	24
8	.1	.0	.1	.4	.5	.7	1.1	1.0	.1	2.4	3.1	2.5	5.3	5.6	5.3	5.0	5.2	6.8	5.5	8.5	4.3	4.7	5.0	5.6	3.1	24
9	4.5	2.5	7.0	2.0	1.7	.4	.9	1.3	1.0	1.7	2.1	5.0	9.6	9.6	9.6	9.4	9.0	8.2	6.8	4.6	3.3	3.0	2.7	3.5	4.6	24
10	4.0	4.0	4.5	4.0	4.0	4.5	3.4	2.8	3.7	4.5	4.2	6.8	7.0	6.0	5.5	5.5	5.0	4.2	3.2	1.9	1.6	1.1	1.2	1.0	4.0	24
11	1.1	.8	1.0	1.0	.5	1.5	4.3	6.0	3.8	5.3	8.1	7.2	7.1	8.0	7.8	9.2	9.5	9.4	9.2	9.0	7.0	6.0	6.0	6.5	5.6	24
12	6.0	6.6	5.6	4.9	5.0	5.0	6.0	6.0	6.2	7.9	8.9	7.2	6.1	7.1	8.8	8.0	7.4	9.0	7.5	5.7	3.7	4.0	8.5	6.0	6.5	24
13	5.7	6.3	6.2	4.5	2.5	2.0	2.4	1.1	1.0	.4	1.1	1.2	1.7	4.3	6.0	10.0	9.5	9.5	9.0	9.0	10.0	8.8	5.3	6.7	5.2	24
14	6.2	7.3	7.5	7.5	7.0	7.5	8.0	8.3	7.7	7.8	7.1	6.0	7.0	8.0	8.2	8.8	8.5	8.8	8.0	8.0	7.8	6.4	7.0	6.5	7.5	24
15	7.0	7.0	5.5	5.8	4.0	4.0	4.0	4.0	4.0	4.1	3.3	2.9	2.0	1.3	2.0	2.2	2.3	3.4	2.0	2.1	3.5	5.0	3.5	1.7	3.6	24
16A	.5	.2	.3	.2	.4	1.2	3.0	2.8	2.0	1.7	3.0	2.8	1.4	3.9	9.4	10.6	10.4	9.0	9.1	8.0	9.5	10.2	8.8	8.0	4.8	24
17	6.2	4.8	3.3	4.0	3.5	5.5	7.1	7.4	7.0	6.0	9.8	6.8	6.0	6.6	7.3	7.9	8.1	8.2	9.0	8.6	10.3	10.6	9.0	8.1	7.1	24
18	9.0	7.3	5.0	6.0	5.7	4.8	5.3	3.0	4.0	2.8	4.0	3.7	4.8	3.9	3.4	4.4	5.5	4.8	4.7	4.8	6.5	4.8	2.5	3.9	4.8	24
19	3.0	2.5	3.6	4.8	5.2	4.1	4.4	7.6	9.0	8.0	6.7	6.5	6.5	6.5	6.6	5.4	4.6	2.8	1.8	.4	.6	.4	.2	.1	4.3	24
20	.1	.2	.8	.1	1.0	1.1	.1	1.2	3.5	6.0	6.5	7.0	5.5	6.7	8.3	7.0	8.0	7.5	5.1	4.2	4.0	4.8	4.4	6.0	4.0	24
21	6.0	5.8	5.9	5.1	5.2	5.2	5.7	9.0	11.3	13.5	14.2	15.0	16.0	13.5	12.3	11.8	12.0	9.2	8.0	6.2	6.3	5.1	4.1	4.0	8.8	24
22	3.5	4.1	1.5	1.0	1.0	1.4	1.4	1.4	5.6	7.8	9.0	7.3	7.0	7.3	9.6	9.1	7.9	6.0	5.1	2.9	3.5	2.5	4.0	5.0	4.8	24
23	5.8	6.0	4.5	4.1	6.3	6.2	6.3	7.0	5.5	5.5	6.5	5.4	10.4	10.0	8.6	8.4	8.0	7.0	5.8	5.3	5.0	5.0	6.6	6.0	6.5	24
24	4.7	6.6	5.7	3.0	3.1	2.0	2.4	2.0	2.6	2.8	4.0	3.8	3.4	4.6	4.2	4.7	1.2	1.1	1.0	1.0	1.2	1.0	1.0	3.0	2.9	24
25	1.0	.7	1.1	1.1	1.6	1.9	.2	1.8	2.0	3.0	4.0	3.0	2.6	2.5	2.2	3.0	1.4	1.0	1.6	4.4	4.0	4.0	4.0	3.0	2.3	24
26	3.3	3.8	3.2	3.0	3.2	2.8	2.0	1.6	3.4	6.2	6.8	7.0	8.0	8.0	8.0	7.0	5.4	3.7	3.1	2.8	1.3	1.5	2.0	3.0	4.2	24
27	2.3	1.0	3.0	4.4	3.3	2.3	2.5	3.3	4.0	3.8	5.3	5.7	5.7	6.0	5.3	5.8	5.8	4.6	4.0	4.2	4.0	3.3	4.0	2.8	4.0	24
28	2.2	2.8	2.4	2.5	3.0	2.0	2.0	2.0	3.0	3.5	4.0	7.0	4.8	5.6	6.3	4.8	5.2	6.2	4.0	2.8	3.0	3.0	3.1	3.3	3.7	24
29	5.2	5.2	5.1	4.8	3.2	2.5	1.2	3.2	3.6	3.4	2.4	2.7	3.0	4.7	5.0	5.0									3.8	16
30													9.0	9.0	9.0	9.0	8.3	9.0	8.0	10.5	9.7	9.5	8.7	8.0	9.0	12
AVG	3.3	3.3	3.2	2.8	3.0	3.0	3.1	3.4	3.9	4.6	5.2	5.1	5.7	5.9	6.4	6.7	6.4	5.7	4.9	4.3	4.1	3.9	3.8	3.7	4.4	
NO.	29	29	29	29	29	29	29	29	29	29	29	29	30	30	30	30	29	29	29	29	29	29	29	29		700
MAX	9.0	7.3	7.5	7.5	7.0	7.5	8.0	9.0	11.3	13.5	14.2	15.0	16.0	13.5	12.3	11.8	12.0	9.5	9.2	10.5	10.3	10.6	9.0	8.1	16.0	

SECTION 4.9

WIND DIRECTION

Preceding page blank

03207A

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

1-HOUR DATA LISTING

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A051)

JUL 1977

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5																										0
6	170	200	210	220	220	230	220	210	210	210	230	230	220	210	220	230	230	240	230	240	220	260	250	210	222	24
7	240	250	240	230	230	230	250	250	240	230	240	240	210	190	170	170	170	180	190	210	240	230	230	220	220	24
8	200	200	230	220	230	260	340	20	30	50	60	60	90	50	60	60	40	50	30	40	50	60	70	60	105	24
9	60	210	140	120	90	20	130	80	70	90	100	80	150	150	130	80	270	250	80	150	150	180	140	130	125	24
10	110	150	50	210	180				200	220	210	210	210	210	190	190	190	200	190	190	200	180	180	170	160	24
11	190	210	210	210	210	210	210	210	210	230	230	210	210	210	210	210	210	210	220	220	210	210	210	210	212	24
12	210	210	210	230	240	240	240	230	230	230	230	240	250	230	210	210	210	210	210	210	210	210	210	210	222	24
13	240	230	210	210	210	210	210	210	210	220	220	210	210	210	230	240	240	240	230	240	240	240	250	240	225	24
14					280			270	270	240	210	210	210	220	240	220	220	190	180	200	190	210	210	210	166	24
15	190	250	270	320	20	100	120	150	190	220	220	220	230	190	180	190	200	180	180	180	180	200	190	180	190	24
16	190	210		200	230	240	200	200	190	210	230	250	210	180	180	190	180	170	170	170	190	200	250	210	194	24
17	180	200	220			160	150	170	180	190	190	190	200	180	190	170	190	190	200	200	200	210	210	210	175	24
18	210	210	220	220	220	230	210	230	210	190	220	210	220	220	230	220	210	210	220	200	230	230	240	240	217	24
19		220	240	220	230	240			220	200	210	220	220	210	220	220	210	190	180	180	170	170	160	150	181	24
20	160	170	160	180	160	140	150	150	170	190	190	200	220	200	210	190	180	170	180	180	170	170	170	160	176	24
21	180	180	170	150	190	190	200	220	190	180	190	200	210	210	210	200	190	190	220	210	210	210	250	260	200	24
22	250	220		300	280	350			70	60	50	70	110	80	190	220	290	210	190	320	330	20			155	24
23				190	300	270				90	150	150	190	220	220	220	250	120	190	160	200	220	150	110	186	24
24	180	210		230	240	210	200	220	220	220	230	250	260	250	220	230	250	240	190	190	180	190	200	140	210	24
25	200	210	210	220	230	230	240	240	240	240	220	250	270	260	250	260	270	250	200	210	220	230	40	50	218	24
26	40	350	10	30	20	30	40	60	70	90	90	70	90	100	90	80	100	120	150	80	80	60	70	30	81	24
27	20	30	20	20	10	10	20	20	30	40	20	10	340	350	50	80	100	100	80	90	110	100	90	90	76	24
28	160		170	170	150	170	80	100	130	120	150	180	180	150	190	160	150	150	140	140	140	150	220	350	159	24
29	190	170	170	200			280	300	240	220	220	240	270	330	330	340	280	40	100	120	140	150	170	170	195	24
30	180	180	180	180	180	170	170	160	160	170	170	180	180	180	200	160	170	180	999	999	999				203	21
31									295	210	210	210	210	200	210	200	190	190	190	200	210	200	190	210	203	16
AVG	150	183	142	179	172	166	146	147	169	175	180	184	205	201	198	196	200	180	205	213	217	181	175	171	181	
NO.	25	25	25	25	25	25	25	25	26	26	26	26	27	27	27	27	27	27	27	27	27	26	26	26		625
MAX	250	350	270	320	300	350	340	300	270	240	240	250	340	350	330	340	290	250	999	999	999	260	250	350	999	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #6 BUILDI
(372240999A051

AUG 1977

1-HOUR DATA LISTING

WIND DIRECTION
411D711
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

DAY	12 AM	1	2	3	4	5	6	7	8	9	10	11	12 PM	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1	190	190	190	200	210	210	210	210	203	203															202	10
2	200	200	180	200	210	200	200	210	210	210	210	200	210	220	210	210	220	190	180	180	160	170	180	170	197	24
3	40	60	70	90	70	70	90	100	120	120	120	190						80	100	170	220	270	320	110	98	24
4	180	150	120	120	100		220	230	210	220	230	230	230	210	210	220	220	240	270	300	120	180	200	210	192	24
5	200	190	190	180	180	180	190	190	200	200	200	190	200	190	190	150	70	110	90	90	120	150	170	180	147	24
6																										
7																										0
8																										0
9																										0
10	190	210	230	210	220	220	240	240	200	210	230	240	203 240	210 230	210 150	210 180	200 160	190 100	190 120	180 150	190 180	180 200	180 210	190 210	194 199	12 24
11	190	160	180	140	140	150	180	170	190	240	310	360	20	30	40	30	10	10	20	30	10	20	30	20	111	24
12	10	10	10	10	10	350	20	20	20	20	20	30	20	10	30	10	340	300	310	300	90	90	120	140	95	24
13	190	210	220	240	240	180	270	170	170	180	200	210	340	380	360	90	80	100	120	140	130	130	90	120	187	24
14	140	90	70	80	70	80	90	120	170	160	170	170	170	170	180	200	170	170	160	90	50	70	40	50	122	24
15	90		190	200	240	230	200	30	30	80	190	150	150	180	160	160	160	150	170	170	160	170	190	190	150	24
16	190	210	210	210	210	200	210	210	210	210	210	220	220	230	230	230	230	240	220	220	270	250	210	180	218	24
17	40	90		90	40	70	30	30	30	10	60		100	50	70	10	10	10	20	20	30	30	40	40	38	24
18					20	30	30	30	10	20	30	60	70	100	120	130	90	90	80	70	50	60	60	60	50	24
19	70	70	50	60	50	80	80	100	140	130	70	90	120	110	100	150	150	160	170	180	180	170	160	130	115	24
20	160	160	130	120	100	70	210	90	60	60	90	180	180	220	210	210	230	210	250	170	140	150	140	150	154	24
21	150	150	210	210	210	210	270	280	190	230	90	150	190	220	240	240	240	280	40	30	300	60	90	90	180	24
22	160	200	220	260	200	150				180	180		200	180	270	180	170	160	160	170	170	150	160	160	153	24
23	180	190	190	180		170	240	320	190	100	120	150	160	170	180	190	210	220	280	90	90	80	60	60	157	24
24	60				90			70		340	90	70	60	60	70	70	60	70	80	90	70	70	60		62	24
25				160	160		160	160	160	150	160	170	180	180	180	180	180	180	180	180	180	160	180	180	142	24
26	180	180	180	180	180	180	180	190	180	200	200	210	210	200	190	190	180	180	180	180	180	180	180	180	186	24
27	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	24
28	180	180	180	180	180	180	180	180	180	180	180	180	180	270	340	10	50	70	70	80	60	30	90	90	142	24
29	30	30	40	40	50	50	60	50	40	30	20	40	70	100	110	150	340	20	60	70	110	90			67	24
30	150	180	150		160	160			160	170	170	180	200	210	210	180	190	180	180	160	160	160	160	160	151	24
31	190	200	180	180	210	200	180	190	180	190	200	210	210	210	210	190	180	180	180	180	170	160	170	200	190	24
AVG	131	129	132	138	138	139	145	140	135	154	149	154	160	146	172	146	159	151	150	143	140	134	132	126	144	
NO.	27	27	27	27	27	27	27	27	27	27	26	26	27	27	27	27	27	27	27	27	27	27	27	27		696
MAX	200	210	230	260	240	350	270	320	210	340	310	360	340	340	360	240	340	300	310	300	300	270	320	210	360	

154

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OKMULGEE CO
RURAL WATER DISTRICT #A BUILDI
(372240999A05)

SEP 1977

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
1							20	20	30	40	60	80	170	190	190	180	180	180	170	160	160	170	200	180	99 24
2	140	150		300	300					60	150	200	210	240	210	180	160	160	160	150	120	150			127 24
3					330	310	330					200	220	230	250	180	170	170	180	180	180	180	150	140	142 24
4			270	240				130			180	180	200	210	230	200	180	70	80	50	50	30	20	20	97 24
5	30	30	10	20	20	360	40	50	50	60	60	40	50	50	50	50	50	50	50	50	50	50	20	350	48 24
6	350	20		30	40		340	350			50	50	60	60	40	40	40	40	40	40	50	30	30	50	73 24
7	40	40	40			30				10	40	70	60	50	70	70	70	70	70	80	90				37 24
8											270	170	180	190	200	190	200	210	190	180	180	180	170	180	112 24
9	200	200	210	220	230	240	320	240	240	230	270	200	130	230	290		60	30	30	30	20	20	20	20	153 24
10	20	30	30	30	20	30	40	40	40	50	50	70	60	60	80	70	70	70	70	60	60	100	70		51 24
11	30		100	140	120	160	160	160	150	140	90	150	120	150	150	150	150	150	140	140	160	180	150	160	132 24
12	160	170	180	180	180	180	180	180	180	190	200	200	210	200	200	200	200	190	190	180	190	180	180	190	187 24
13	150	180	190	200	250	210	180	170	180	260		150		360	330	360	360	10	360	350	360	360	360	360	237 24
14	350	10	10	20	20	10	10	10	360	360	10	10	360	360	360	350	360	360	350	350	10	360	360	340	212 24
15	330	330	330	310	310	300	320	320	300	300	300	300	270	290	280	290	220	200	190	170	150	130	110	100	258 24
16	140	150	160	160	170	180	220			150	90	90	140	160	170	180	180	180	180	180	180	180	180	180	150 24
17	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180 24
18	180	180	180	180	210	190	200	200	210	210	200	210	210	200	190	190	200	190	190	190	320	330	20	20	192 24
19	340	340	340	10	20	360	360	360	20	10	30	30	20	10	30	20	30	10	30	10	10				100 24
20	240	240	320	270	300	270	290		310	110	100	150	170	180	180	180	160	160	150	150	160	170	160	170	191 24
21	150	160	170	170	180	180	180	180	180	170	180	180	180	170	170	170	170	170	180	170	170	170	180	160	172 24
22	180	180	150	200	220		130	150	140	120	150	170	180	190	190	190	180	190	180	180	180	170	170	160	165 24
23	160	160	170	170	170	170	180	180	180	180	190	190	200	210	210	200	190	190	180	180	180	180	180	180	182 24
24	180	180	180	190	200	270	300	50	40	40	50	40	50	60	60	70	60	60	50	60	50	20	10	10	95 24
25	340	10	210		350	340	200	210	210	210	210	210	230	240	270	290	260	270	320	330	340	340		330	238 24
26		20	40		10	30	30	70		350	60	140	180	180	180	180	180	180	180	180	180	180	180	180	121 24
27	180	180	180	180	180	180	300	50	80	110	130	150	140	140	150	130	110	90	80	70	70	60	50	60	127 24
28	40	40	60	60	80	90	90	100	110	120	130	130	130	150	150	140	100	90	90	110	120	130	120	110	104 24
29	180	190	180	120	70	90	100	110	130	150	170	170	170	180	200	210	210	170	120	130	60	50	50	60	136 24
30	70	100	110	130	150	150	160	160	160	170	180	190	200	190	190	190	190	200	200	190	180	170	170	180	166 24
AVG	146	116	133	129	144	150	162	122	116	133	126	144	156	177	182	166	162	143	153	139	140	147	116	136	143
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720
MAX	350	340	340	310	350	360	360	360	360	360	300	300	360	360	360	360	360	360	360	350	360	360	360	360	360

AIR QUALITY DATA REPORT

AGENCY: COUNTY
STATE: OKLAHOMA
PROJECT: POPULATION-ORIENTED SURV.

PARAMETER: WIND DIRECTION, MD
UNITS: DEGREES COMPASS
MIN DET: 1 SAROAD KEY: 373000110G01

COLLECTION METHOD: INSTRUMENTAL
ANALYSIS METHOD:
MONTH: JULY

SAMPLING INTERVAL: 01 HOURS
SITE: TULSA - TULSA PUBLIC HEALTH (WIND DATA - SITE 110)
YEAR: 1977

KEY-1: 373000110G01177 KEY-2: 070100 KEY-3: 6110211140 AREA: 3000 SITE: 110 UNITS CODE: 14 DECIMAL CODE: 0

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	45	63	45	90	135	45	54	54	45	45	63	63
02	162	153	153	153	162	171	171	180	189	189	189	189
03	189	189	189	189	180	180	189	198	207	216	225	198
04	189	189	198	198	198	198	189	189	198	216	207	207
05	198	189	198	207	207	189	198	207	207	225	225	225
06	171	189	198	189	198	207	207	207	207	225	225	225
07	216	216	198	198	198	207	216	216	207	207	207	216
08	225	216	234	243	180	180	180	180	90	180	90	135
09	135	135	90	135	135	180	180	63	54	63	90	90
10	135	108	90	135	171	180	180	189	198	198	216	198
11	171	189	198	189	189	198	198	198	198	198	207	189
12	189	198	207	207	207	207	207	207	207	216	225	225
13	198	207	207	207	198	198	198	216	234	234	225	216
14	162	180	189	207	198	189	189	198	180	207	198	207
15	180	198	189	162	171	162	162	171	189	207	207	189
16	180	180	180	180	189	198	189	189	198	207	207	207
17	189	198	189	180	171	171	180	180	189	198	207	207
18	198	180	180	198	198	207	207	198	198	198	207	207
19	180	180	189	198	198	189	189	180	189	198	198	180
20	171	162	171	171	162	171	171	171	180	180	207	207
21	162	180	189	198	198	198	198	189	189	189	198	198
22	324	306	315	180	180	180	135	45	22	22	22	100
23	55	90	100	135	185	35	40	90	105	145	235	225
24	189	182	194	194	189	198	198	207	207	217	216	253
25	189	198	198	198	207	216	216	216	225	243	261	261
26	135	45	45	45	54	72	72	81	90	99	90	72
27	180	180	180	180	180	180	180	180	90	180	90	270
28	171	162	180	171	189	162	144	153	162	171	198	207
29	162	180	180	162	162	171	135	216	216	198	198	225
30	189	180	189	198	198	198	198	198	198	198	198	198
31	54	171	162	225	315	135	45	54	108	135	135	90
ND	31	31	31	31	31	31	31	31	31	31	31	31
MEAN	171	174	175	176	184	173	168	168	167	181	183	190
MAX	324	306	315	243	315	216	216	216	234	243	261	270

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	ND.	MEAN	MAX
01	54	63	81	108	144	144	144	171	180	180	171	162	24	98	180
02	180	180	180	180	188	189	189	189	189	180	180	180	24	177	189
03	216	198	198	198	189	189	189	198	189	171	180	180	24	194	225
04	207	207	207	189	198	198	207	207	198	189	198	189	24	199	216
05	225	216	216	198			189	198					18	207	225
06	216	207	189	189	198	207	189	198	189	198	198	207	24	201	225
07	207	198	171	171	189	189	198	225	243	225	216	207	24	206	243
08	90	135	180	180	180	180	180	90	90	45	63	54	24	154	243
09	54	90	135	180	225	135	81	135	171	207	216	234	24	134	234
10	180	180	171	189	189	189	180	180	171	162	162	162	24	171	216
11	180	180	180	189	189	198	198	198	198	189	189	189	24	192	207
12	207	207	207	216	189	189	189	189	198	207	207	198	24	204	225
13	198	198	189	198	189	189	189	189	198	207	207	198	24	204	234
14	225	207	207	180	180	180	171	180	180	180	189	180	24	190	225
15	198	180	162	162	180	153	162	171	171	171	171	171	24	177	207
16	180	171	171	171	162	162	162	162	144	180	180	189	24	181	207
17	207	198	198	189	189	198	189	189	189	189	189	198	24	191	207
18	207	207	207	198	189	189	189	189	198	198	198	180	24	197	207
19	180	180	180	180	162	171	180	171	162	162	162	162	24	180	198
20	189	189	180	180	180	180	162	162	162	162	162	171	24	175	207
21	189	189	189	180	180	272	298	252	225	270	270	315	24	213	315
22	67	180	315	360	315	90	225	265	325	360	360	45	24	197	360
23	270	235	225	207	360	360	58	153	144	153	157	171	24	164	360
24	216	261	235	262	270	250	207	180	180	180	189	180	24	211	270
25	261	279	297	270	279	315	270	315	36	36	36	90	24	213	315
26	99	81	99	136	144	117	90	45	45	45	54	180	24	85	180
27	180	90	45	45	63	45	54	90	63	63	113	135	24	127	270
28	180	180	270	225	225	198	225	171	171	135	144	153	24	181	270
29	180	225	180	207	360	45	126	144	144	144	180	189	24	180	360
30	198	198	198	189	189	189	180	171	171	135	45	45	24	177	198
31	180	45	54	54	180	180	45	180	180	180	90	45	24	127	315
ND	31	31	31	31	30	30	31	31	30	30	30	30	738		
MEAN	181	179	184	186	202	183	171	182	170	170	169	165		177	
MAX	270	279	315	360	360	360	298	315	325	360	360	315			360

AIR QUALITY DATA REPORT

AGENCY: COUNTY
STATE: OKLAHOMA
PROJECT: POPULATION-ORIENTED SURV.
PARAMETER: WIND DIRECTION, NO
UNITS: DEGREES COMPASS
MIN DET: 1 BAROAD KEY: 373000110001
COLLECTION METHOD: INSTRUMENTAL
ANALYSIS METHOD:
MONTH: AUGUST
SAMPLING INTERVAL: 01 HOURS
SITE: TULSA - TULSA PUBLIC HEALTH (WIND DATA - SITE 110)
YEAR: 1977
KEY-1: 373000110601177 KEY-2: 080100 KEY-3: 0110211140 AREA: 3000 SITE: 110 UNITS CODE: 14 DECIMAL CODE: 0

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	270	297	360	360	351	270	315	360	360	45	54	81
02	180	198	180	270	270	288	270	180	135	144	180	252
03	189	198	207	207	198	198	198	189	234	288	360	45
04	198	198	198	198	189	189	180	360	99	81	81	126
05	180	180	180	180	180	180	198	171	171	180	189	189
06	189	198	189	198	198	189	189	189	198	198	198	198
07	189	189	189	189	189	198	207	198	207	216	216	216
08	189	189	189	189	180	189	198	207	207	216	216	216
09	180	180	180	180	189	189	189	189	207	216	207	207
10	207	216	207	216	207	216	207	198	207	225	243	270
11	171	144	144	153	180	171	126	45	360	360	18	36
12	360	360	360	360	18	360	18	18	18	360	351	18
13	198	189	180	180	180	180	180	180	180	189	189	270
14	108	108	135	108	117	117	135	135	153	171	180	189
15	162	180	180	216	244	360	90	90	108	135	171	180
16	198	198	198	198	198	198	207	198	207	207	243	243
17	54	360	45	72	360	360	45	360	45	36	36	360
18												
19	63	63	90	90	99	81	90	90	108	135	126	108
20	162	162	180	171	153	135	63	63	81	171	207	216
21	198	198	198	225	225	225	234	360	180	225	270	270
22	225	253	189	225	225	180	162	126	135	162	180	180
23	135	144	270	36	189	189	162	180	180	189	198	216
24	144	135	45	360	18	18	18	360	45	63	54	63
25	144	153	162	162	162	162	171	153	162	171	180	180
26	180	180	180	180	189	189	180	189	189	189	198	207
27	180	180	180	180	189	189	189	189	180	189	189	189
28	189	189	189	189	189	189	180	198	189	198	36	360
29	360	36	36	45	36	36	36	360	360	36	63	45
30	144	153	153	144	153	171	180	162	171	180	189	198
31	171	180	189	189	180	180	189	198	189	198	207	207
NO	30	30	30	30	30	30	30	30	30	30	30	30
MEAN	184	187	179	189	182	193	160	197	176	179	178	185
MAX	360	360	360	360	360	360	315	360	360	360	360	360

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	90	99	108	108	108	108	135	135	144	162	162	171	24	194	360
02	252	351	360	9	45	90	135	144	144	162	162	171	24	191	360
03	135	171	180	198	198	198	198	180	171	171	180	189	24	195	360
04	135	162	171	171	180	180	180	171	171	171	180	180	24	173	360
05	198	207	216	189	198	162	180	180	180	180	180	180	24	185	216
06	198	207	198	207	198	198	189	189	180	180	180	189	24	194	207
07	207	189	189	189	189	189	180	180	189	189	180	189	24	194	216
08	225	216	198	189	196	207	198	189	189	180	180	189	24	197	225
09	216	216	207	207	207	207	198	189	189	180	180	198	24	197	216
10	243	180	180	171	189	162	162	189	207	216	189	171	24	203	270
11	36	27	360	360	360	360	360	360	360	360	360	360	24	232	360
12	27	315	360	225	342	360	360	63	135	153	171	198	24	221	360
13	315	315	63	63	126	135	144	153	153	171	180	162	24	178	315
14	180	180	171	144	153	135	360	216	45	45	90	126	24	146	360
15	171	180	171	135	144	144	135	144	171	189	198	189	24	170	360
16	234	216	216	234	315	360	315	180	135	36	63	90	24	204	360
17	360	360	360	360	360	360							18	239	360
18	117	99	99	99	135	117	54	63	63	63	63	45	12	85	135
19	117	144	153	135	126	144	180	207	207	198	171	162	24	129	207
20	180	180	162	180	171	180	171	153	171	180	198	198	24	162	216
21	225	315	36	360	360	360	360	360	90	189	162	189	24	242	360
22	180	180	162	162	135	135	171	162	162	180	198	207	24	178	253
23	225	225	225	180	225	315	360	81	126	135	126	135	24	185	360
24	45	54	63	63	54	64	72	63	54	81	90	108	24	89	360
25	180	171	171	171	180	171	171	171	171	162	171	171	24	168	180
26	207	198	189	189	180	180	180	180	180	180	180	180	24	186	207
27	189	189	180	189	180	180	180	180	180	180	180	180	24	184	189
28	360	36	45	63	71	81	63	36	36	36	360	360	24	160	360
29	63	36	72	36	36	36	90	36	45	81	99	108	24	91	360
30	207	189	180	180	171	162	162	162	162	171	171	180	24	171	207
31	198	207	198	180	180	171	171	171	171	171	171	162	24	185	207
NO	31	31	31	31	31	31	30	30	30	30	30	30	726		
MEAN	184	188	182	172	184	189	194	163	153	158	173	178		179	
MAX	360	360	360	360	360	360	360	360	360	360	360	360			360

AIR QUALITY DATA REPORT

AGENCY: COUNTY — STATE: OKLAHOMA — PROJECT: POPULATION-ORIENTED SURV.

PARAMETER: WIND DIRECTION, 4D — UNITS: DEGREES COMPASS — MIN DET: 1 — BAROAD KEY: 373000110G01

COLLECTION METHOD: INSTRUMENTAL — ANALYSIS METHOD: — MONTH: SEPTEMBER

SAMPLE INTERVAL: 01 HOUR — SITE: TULSA - TULSA PUBLIC HEALTH (WIND DATA - SITE 110) — YEAR: 1977

KEY=1: 373000110G01177 KEY=2: 000100 KEY=3: 6110211140 AREA: 3000 SITE: 110 UNITS CODE: 14 DECIMAL CODE: 0

HOUR

DAY	00	01	02	03	04	05	06	07	08	09	10	11
01	153	171	180	171	135	54	18	360	45	90	108	180
02	162	162	171	180	180	189	189	180	189	198	198	198
03	198	198	198	90	90	90	135	171	189	189	198	216
04	171	162	153	153	144	162	162	162	180	189	226	226
05												
06										45	54	45
07	63	54	36	27	27	45	9	360	18	45	45	27
08	45	90	99	117	117	27	45	45	171	189	189	189
09	207	207	216	207	270	198	216	225	252	270	270	225
10	360	360	360	360	360	360	18	27	27	27	45	54
11	99	81	108	144	171	144	162	162	135	45	135	153
12												
13	180	189	225	225	189	153	144	189	180	234	261	315
14									360	360	360	360
15	342	315	315	315	315	315	315	315	297	270	270	270
16	153	162	171	180	198	270	144	135	135	99	72	144
17	171	180	180	180	180	180	180	189	180	189	189	189
18	189	189	189	198	198	198	198	198	198	207	207	207
19	360	360	360	360	360	360						360
20	108	108	135	144	144	144	108	63	99	162	162	180
21	162	171	171	180	180	180	189	180	171	180	180	180
22	180	180	0	153	171	162	90	126	144	144	171	171
23	171	171	171	180	180	180	189	189	189	189	198	198
24	189	189	225	315	9	36	45	18	45	45	63	63
25	36	90	126	153	171	180	198	198	207	207	243	252
26	36	18	18	45	27	36	36	27	72	153	180	180
27	189	207	216	216	90	63	99	126	135	126	135	126
28	54	63	81	81	90	108	126	135	135	135	144	153
29	90	27	54	144	144	135	153	135	180	180	171	189
30	126	144	144	153	162	171	171	171	180	180	189	208
NO	28	28	28	28	28	28	28	25	25	26	27	27	28
MEAN	159	160	162	178	165	159	134	167	158	161	173	186
MAX	360	360	360	360	360	360	315	360	360	360	360	360

HOUR

DAY	12	13	14	15	16	17	18	19	20	21	22	23	NO.	MEAN	MAX
01	189	189	180	171	180	171	154	162	153	162	153	153	24	153	360
02	207	198	153	162	144	144	135	135	135	135	135	135	24	167	207
03	207	207	180	144	153	135	144	135	135	153	153	153	24	150	216
04	235												13	179	235
05													0		
06	45	45	36	45	18	45	45	36	54	72	72	72	15	49	72
07			72	72	63	36	63	63	63	54	63	54	22	62	360
08	189	198	180	189	189	180	153	162	171	171	180	189	24	149	198
09	270	360	360	360	360	360	360	360	360	360	360	360	24	241	360
10	45	63	63	54	90	81	63	63	54	81	81	90	24	133	360
11	162	162	162	162									16	137	171
12		198	198	198	189	189	189	189	189	189	189	180	11	191	198
13	324	324	360	360	360								17	248	360
14	360	360	360	360	360	360	360	360	360	360	360	360	16	360	360
15	289	297	261	180	189	189	171	135	135	135	135	135	24	246	342
16	180	189	189	189	189	180	180	180	180	189	180	180	24	170	270
17	198	198	189	189	189	189	189	189	180	180	180	180	24	185	198
18	198	198	207	216	207	225	324	360	360	360	360	360	24	240	360
19	360	360	27	27	27	360	360			45	99	126	17	254	360
20	180	171	162	162	153	153	162	153	153	162	162	162	24	146	180
21	171	171	171	171	180	180	180	180	180	180	180	180	24	177	189
22	180	180	180	180	180	171	171	171	171	162	162	171	24	157	180
23	198	180	180	189	189	180	180	180	180	180	180	180	24	183	198
24	54	63	63	54	54	54	45	54	81	81	72	45	24	82	315
25	252	234	270	315	351	360	360	360	360	360	360	36	24	237	360
26	189	180	189	180	180	189	189	180	180	180	180	189	24	126	189
27	117	108	99	72	54	54	54	45	54	54	54	45	24	106	216
28	144	99	90	99	126	126	135	135	135	135	153	144	24	118	153
29	243	36	270	333	360	360	45	54	54	54	81	108	24	149	360
30	208	198	198	198	189	189	189	180	180	180	189	189	24	179	208
NO	27	27	28	28	27	28	28	25	25	26	26	26	631		
MEAN	200	191	180	180	182	187	177	169	170	168	172	161		171	
MAX	360	360	360	360	360	360	360	360	360	360	360	360			360

D3207R

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A05)

1-HOUR DATA LISTING

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

JUL 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5																										0
6													190	190	170	170	180	180	170	160	180	200	190	190	181	12
7	190	180	190	190	190	190	200	200	200																192	9
8																	30	40	40	50	60	80	40		42	8
9	320	300		350		10	10	20	30	30	50	60	50	30	40	60	100	80	90	120	110	80	130	60	89	24
10	20	50	200	20	180	180	180	180	200	230	200	180	180	160	160	160	160	160	160	140	140	140	140	160	153	24
11	180	180	180	180	180	180	180	180	180	180	180	160	180	180	180	180	180	180	180	180	180	180	180	180	179	24
12	180	180	180	180	180	200	200	200	200	230	230	230	250	250	230	180	160	180	180	180	180	180	180	180	197	24
13	180	160	180	200	180	180	180	180	200	230	200	180	180	180	180	180	180	180	180	180	180	200	200	180	185	24
14	180	180	180	180	180	200	180	180	200	200	230	200	200	200	180	180	180	180	180	160	180	160	180	180	185	24
15	200	190	160	160	190	170	170	170	180	200	200	190	170	170	160	160	160	220	200	160	180	160	200	180	179	24
16	190	170	190	200	200	200	170	180	190																188	9
17																										0
18												200	200	190	180	180	170	170	170	170	170	200	220	200	186	13
19	170	180	200	200	190	180	170	170	180	180	180	170	160	170	170	160	150	140	140	140	130	150	160	150	166	24
20	170	180	200	200	190	180	170	170	180	180	180	170	160	170	160	160	150	140	140	140	130	150	160	150	166	24
21	140	160	170	180	170	140	150	170	180	220	200	170	150	180	360	300	170	200	190	220	20		320	200	181	24
22	250	10			10	40	50	50	40	60	40	50	50	220	180	20	20	20	110	200	270	50	50	30	76	24
23	30	40	320	10		350	10	10	170	180	190	240	230	230	230	270	240	270	220	160	110	130	140	150	162	24
24	180	190	190	190	190	180	180	190	200	200	210	220	220	220	220	220	210	200	200	180	200	190	160	170	196	24
25	190	190	180	190	180	200	200	210	210	240	240	240	280	270	270	250	250	340	30	30	30	30	20	20	177	24
26	10	20	30	30	30	20	40	60	50	20	40	50	60	90	110	70	40	50	30	20	10	10	20	20	39	24
27	20	10	10	20	10	20	20	30	30	20	10	20	50	50	60	70	80	70	70	70	70	80	90	110	45	24
28	100	90	100	110	160	220	180	190	190	200	190	160	160	190	180	180	180	170	160	180	130	130	140	100	158	24
29	90	110	120	100	100	180	200	210	300	360	360	360	300	330	240	20	340	60	110	90	110	140	170	170	192	24
30	180	180	180	170	180	180	170	180	190	180	180	200	200	200	200	180	160	160	160	130	30	30	120	170	163	24
31	170	180	240	240	350	50	90	90	120	80	30	30	40	60	20		180	60	10	350	90	340	10	150	124	24
AVG	151	142	155	150	147	157	141	146	162	171	167	166	165	179	178	152	160	150	136	148	126	131	140	135	152	
NO.	22	22	22	22	22	22	22	22	22	20	20	21	22	22	22	22	23	23	23	23	23	23	23	23		531
MAX	320	300	320	350	350	350	200	210	300	360	360	360	300	330	360	300	340	340	220	350	270	340	320	200	360	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993ADS)

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

AUG 1977

1-HOUR DATA LISTING

DAY	AM												PM										DAILY MEAN	NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11		
1	100	350	350	350	360	90	110	20	60	90	90	110	110	90	90	90	100	110	120	120	140	170	170	200	150	24
2	200	270	60	350	290	150	40	100	270	250	260	280	330	350	10	350	60	60	130	130	140	130	180	200	191	24
3	190	170	200	190	200	210	240	230	330	10	90	170	180	190	200	210	200	180	180	160	160	150	170	180	184	24
4	170	180	180	170	170	90	30	70	50	80	110	140	140	150	160	170	170	170	160	160	160	160	170	170	141	24
5	160	170	170	180	170	100	70	140	170	180	180	200	190	200	200	180	170	170	160	160	160	170	170	180	165	24
6	190	180	190	170	180	190	190	180	190	190	200	200	210	200	190	190	190	180	170	170	170	170	170	180	185	24
7	180	180	180	180	180	180	180	200	200	200	200	200	210	190	190	180	180	180	170	170	170	170	160	170	183	24
8	170	180	180	180	180	180	180	190	200	200	210	200	210	190	190	180	180	180	180	170	170	170	160	160	183	24
9	160	180	180	180	180	180	180	190	200	200	200	200	200	200	210	200	210	200	220	200	190	180	190	190	192	24
10	190	190	180	180	190	190	180	210	270	250	230	230	200	180	180	170	180	180	180	180	190	190	150	10	187	24
11	40		60	100	50	10		10	20	30	30	20	10		20		10	20	20	10	10	20	20	10	22	24
12	10	10	10	10	10	20	20	20	30	10	30	30	270	300	340	300	320	270	50	50	60	50		350	107	24
13	330	350	350	70	120	140	140	160	180	220	300	340	250	100	90	90	90	100	110	140	170	170	100	60	179	24
14	70	110	90	120	150	110	80	110	150	160	160	180	180	180	140	110	90	130	140	20	60	60	30	190	118	24
15	160	200	160	80	350	30	80	80	120	140	150	150	160	160	150	140	140	150	150	150	140	170	180	180	149	24
16	180	180	190	180	180	190	190	180	290	90	120	200	190	200	190	220	230	210	180	340	60	330	30	10	180	24
17	200	200	200	300	300		100	300		300	300	200	200		100	200	200	30	30	300	200			100	157	24
18	350	20	10		340	350	10	30	80	110	100	110	110	90	70	60	60	50	50	60	60	10	50	60	93	24
19	60	50	30	50	40	30	50	80	100	90	110	120	150	150	150	140	140	130	100	110	100	70	110	90	99	24
20	100	110	180	170	170	160	170	140	180	190	210	180	190	240	180	180	150	150	140	150	140	160	190	190	167	24
21	190	200	200	190	170	50	120	190	230	240	240	260	240	260	260	270	330	340	310	250				10	190	24
22	230	350			10	340		20	60	120	170	180	180	160	150	140	130	120	120	120	130	160	150	70	130	24
23	70	60	180	180	180	70	60	150	170	180	240	240	210	210	150	170	50	30	40	70	60				113	24
24	10	10	10	10	10	10	20	30	40	50	60	60	50	50	50	50	50	60	70	60	60	100	80	100	46	24
25	240	40	150	140	160	150	140	150	160	160	160	160	160	160	160	160	160	160	160	150	140	150	150	160	153	24
26	160	160	170	170	170	170	170	170	170	170	170	170	170	170	170	160	160	150	150	160	160	160	160	160	165	24
27	160	160	160	160	170	170	170	170	170	170	170	170	170	160	170	160	170	160	170	170	150	140	150	160	164	24
28	170	170	160	160	170	170	170	290	10	20	20	30	50	70	60	30	30	20	10			20	20	20	78	24
29	30	30	30	30	30	20	20	20	20	30	30	30	60	70	110	100	120	100	110	90	110	50	70		55	24
30	120	30	340	330	180	160	180	170	170	180	180	180	180	160	160	160	160	150	140	140	140	160	170	170	171	24
31	190	180	170	160	190	180	180	170	180	180	190	180	180	180	170	160	160	160	150	150	160	160	170	310	177	24
AVG	152	151	152	153	168	132	112	135	144	143	158	165	179	162	150	159	148	138	132	139	121	129	119	130	149	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		744
MAX	350	350	350	350	360	350	240	300	330	300	300	340	330	350	340	350	330	340	310	340	200	330	190	350	340	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
WYNONA TRAILER COURT 1/4 MILE
(372260993A05)

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

SEP 1977

DAY	AM												PM											DAILY MEAN NO.
	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	
1	320	310	340		10	30	60	70	100	110	120	160	170	170	170	160	160	150	140	140	150	160	170	180	148 24
2	180	200	230	210	210	100	110	180	180	190	200	190	190	170	150	150	140	120	110	100	110	110	150	180	161 24
3	290	280	290	330		350	340	30	170	190	200	190	190	180	150	160	150	110	100	100	110	130	170	180	179 24
4	200	220	330	200	70	350	350	260	170	190	190	210	310	350					20	50	20	10	30	10	147 24
5	20	60	340	20	50		10		10	20	10	10	30	30	20	90	60	60	70	40		10	30	340	53 24
6	340	350	340	350	350	350				20	40	50	40	30	30	30	20	20	10				20	350	114 24
7			350	10	350		10	20	30	40	60	60	70	60	60	70	90	90	90	110	20	350	350		95 24
8		10		350	40	40	10	210	170	190	190	180	180	190	170	150	150	140	140	140	150	160	170	180	138 24
9	180	190	290	150	190	180	180	180	190	220	330		10	10	10	10	10	10	10	10	10	10	10		100 24
10	10	10	10	10	10	10	10	20	30	60	60	70	70	80	70	80	90	80	60	50	60	50	40	30	45 24
11	80	40	30	150	140	130	140	270	90	130	150	130	130	140	140	140	150	160	150	150	140	150	160	170	136 24
12	170	170	170	170	170	170	170	170	180	180	180	180	190	180	180	170	160	170	170	180	180	180	180	180	175 24
13	180	220	160	210	180	220	290	310	270	240	330	350	350	350	350	350	350			350	350	340	340	350	248 24
14											350	350	350	350			350				10	10			74 24
15	330	330	330	330	330	340	350	290	290	280	260	240	240	240	180	170	160	140	100	90	100	110	110	130	228 24
16	130	150	200	240	200	180	60	160	140	150	160	170	170	170	170	170	170	170	170	170	170	160	160	160	165 24
17	170	170	170	170	170	170	170	180	180	180	180	190	180	180	180	170	170	160	160	160	170	170	170	160	172 24
18	140	160	170	180	180	170	170	180	190	200	200	210	210	230	270	300	320	340	340	340	340	340	340	350	248 24
19	350	10		350	340	330	330		10	10	10		350	330	350	340	340			280	330	350	240	300	206 24
20	340	350	210	70	20		330	140	130	150	150	160	150	140	140	130	130	130	130	140	150	150	140	150	155 24
21	160	140	170	170	170	170	170	160	160	160	160	160	160	170	170	160	160	150	150	150	160	170	180	180	164 24
22	180	180	170	130	130	90	50	120	150	160	160	160	160	150	160	160	150	140	130	120	120	140	140	150	142 24
23	160	160	160	160	160	170	180	180	180	190	180	180	180	180	180	180	180	180	180	170	170	170	180	170	171 24
24	270	350	10	40	40	30	20	40	80	60	60	60	70	100	90	90	90	90	80	10	350	350	350	340	128 24
25	320	330	340	340	340	320	300	340	800	230	320	200	250	10	20		350	350	340	340	350	350	350	10	287 24
26	10			350		350	350	290	120	150	170	170	160	170	170	180	170	160	150	160	160	160	160	170	164 24
27	180	190	260		60	90	80	80	60	60	50	50	50	60	60	60	40	30	20	30	40	30	30	30	68 24
28	30	30	40	30	40	50	50	50	50	60	10	30	60	90	90	100	90	120	130	90	110	130	90	30	67 24
29	40	80	80	90	100	80	70	50	40	60	50	50	20	30	40	30	30	30	20	20	30	30	30	30	47 24
30	90	90	120	140	140	150	150	160	170	180	180	190	200	190	180	170	160	160	160	160	170	170	170	180	157 24
AVG	159	160	175	165	140	159	150	138	145	135	157	144	163	158	132	131	153	115	111	128	141	155	155	156	147
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720
MAX	350	350	350	350	350	350	350	340	800	280	350	350	350	350	350	350	350	350	340	350	350	350	350	350	800

012078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992405)

WIND DIRECTION
411021
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

1-HOUR DATA LISTING

JUL 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1																										0
2																										0
3																										0
4																										0
5	190	220	280	250	230	190	190	170	190	200	190	210	210	200	190	190	200	200	200	200	200	190	160	180	194	14
6	190	190	180	210	180	190	190	190	190	200	200	200	200	200	190	190	200	200	200	210	210	190	210	200	205	24
7	210	190	200	200	180	210	230	190	210	200	200	210	210	200	190	190	200	200	200	210	230	200	200	210	198	24
8	350	330	350	10	20	20	30	90	30	10	50	60	50	50	50	40	40	20	50	50	50	60	290	240	95	24
9	340	350	360	360	10	10	340	10	30	40	80	110	190	100	60	30	130	120	110	170	200	180	180	210	154	24
10	200	330	320	290	300	280	210	180	180	190	190	200	180	180	200	190	190	190	200	190	180	200	190	190	217	24
11	190	200	200	200	170	190	190	200	200	210	170	170	190	180	190	190	200	200	200	200	200	190	190	190	192	24
12	200	200	190	200	190	200	190	190	200	200	210	210	210	210	220	180	190	190	190	200	200	200	200	190	198	24
13	200	240	320	340	310	260	220	180	170	210	210	210	200	200	190	190	190	200	190	200	210	210	200	160	218	24
14	190	203	293	339	339	316	316	248	180	190	190	210	210	210	190	200	200	200	190	190	200	190	200	240	226	24
15	200	210	320	250	240	200	200	180	170	190	210	210	190	200	170	180	180	190	200	200	200	200	200	180	203	24
16	200	190	190	190	180	280	210	190	170	190	200	200	190	200	190	190	180	180	180	180	170	180	190	210	192	24
17	190	220	260	240	260	200	190	190	190	200	200	200	200	200	200	200	200	200	200	220	240	210	210	200	209	24
18	200	220	200	210	220	300	70	170	200	200	210	210	200	190	210	200	210	200	210	220	230	250	240	190	207	24
19	200	200	240	200	200	260	170	190	200	190	200	190	200	200	200	190	190	200	190	190	200	200	190	200	200	24
20	190						180	190	200	190	200	190	180	190	190	170	190	180	180	170	180	180			191	24
21	200	200	220				180	190	190	200	210	170	160	170	180	200	230	270			280	340	320	300	175	24
22	330	360	20	10	20	40	50	50	80	80	90	150	180	170	180	130	50	30	40	100	70	40	70	60	100	24
23			360	350	340	340	340	20	140	170	190	190	240	270	220	210	140	100	130	140	140	170	180	190	192	24
24	200	190	200			190	180	190	200	200	200	230	240	280	290	290	280	230	190	200	200	210	180	180	199	24
25	180	190	200	200	190	190	190		180	230	280	290	290	300	280	310	300	10	50	40	50	50	40	40	171	24
26	30	40	50	50	50	60	50	60	80	120	140	90	70	80	150	160	140	110	80	90	50	40	50	40	78	24
27	40	40	40	30	30	30	20	40	40	50	80	50	40	50	70	100	90	110	100	80	80	190	110		61	24
28								190	190	180	180	150	140	170	170	170	160	160	170	170	170			200	168	24
29	260					300	260			160	110	50	80	70	70	60	80	80	80	110	160	190	200	190	105	24
30	190	200	190	190	190		200	200	200	200	200	200	190	200	200	200	200	200	190	180	30	90	260	200	177	24
31	220	190	310	320	350	330	180	120	170	140	90	90	80	70	50	20	310	110	20	340	230	360	10	270	182	24
AVG	191	182	203	172	156	170	178	139	155	168	175	173	176	176	175	170	181	160	148	167	174	174	172	168	171	
NO.	27	27	27	27	27	27	27	27	27	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28		662
MAX	350	360	360	360	350	340	340	248	210	230	280	290	290	300	290	310	310	270	210	340	290	360	330	300	360	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK
(373140992405)

1-HOUR DATA LISTING

AUG 1977

DAY	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.
	AM												PM												
1	350	20	360	10	10	340	10	70	110	150	140	130	160	140	120	120	130	140	180	220					121 24
2		330	300	320	280			190	170	180	310	360	330	20	80	90	100	140	150	170					147 24
3										20	150	190	190	200	190	190	200	200	190	190	180	190	190	190	111 24
4	180	190	200	190	190	180	30	60	70	100	160	170	180	180	190	200	200	200	190	190	190	190	190	190	147 24
5	190	180	190	180	190				170	180	190	200	200	190	190	190	190	190	190	180	180	180	180	190	143 24
6	190	200	200	200	200	190	190	190	200	200	200	200	190	190	190	190	190	190	200	180	180	190	200	190	193 24
7	200	200	200	200	200	200	200	210	210	220	210	210	200	200	200	200	200	200	200	210	210	200	200	200	203 24
8	210	200	200	200	200	200	190	210	210	210	220	220	210	210	200	200	200	200	200	210	200	190	200	200	204 24
9	200	200	200	190	200	200	200	200	210	200	210	210	210	220	200	210	220	210	210	200	210	200	200	200	205 24
10	200	210	270	240				180	330	310	270	300	300	270	160	180	180	190	200	200	210	220			188 24
11			30		70	50	30	20	30	40	50	40	80	40	30	20	20	30	40	40	40	40	40	40	35 24
12	30	30	20	30	40	50	40	40	50	40	30	40	50	140	90	40	40	10	40	80	50		340	330	69 24
13							200	190	190	210	300	320	10	170	120	160	170	180	190	200	200				117 24
14								160	190	180	190	190	200	190	190	190	180	230	260	40	110	150	130	220	125 24
15	250					360		150	180	180	180	190	180	170	180	180	180	180	180	180	190	190	190	190	153 24
16	200	220	200	180	190	190	180	180	190																
17																									192 0
18																									0
19	40	20	20	30	70	40	30	150	140	180	150	190	150	180	180	90	90	80	80	50	70	90	40	40	102 15
20									200	190	200	230	210	70	180	180	180	180	180	180	190		20		92 24
21																									99 24
22										230	240	200	170	180	110	240	360	10							72 24
23	50	120	200	260				50	140	170	190	190	200	180	180	170	160	170	170	190	200	200		320	120 24
24	20	20	20	30	20	20	20	190	200	210	250	310	330	330	180	210	190	360	50	70			320	320	173 24
25	350					180	180	30	40	70	100	100	100	100	90	90	80	80	100	130	100	40			58 24
26	190	190	190	190	200	190	200	180	180	190	200	200	200	200	190	180	190	190	190	180	190	190	190	190	164 24
27	200	190	200	200	200	190	190	190	200	190	190	200	200	200	190	200	200	190	190	190	190	190	200	200	194 23
28	200	200	200	190	200	190	190	190	190	50	40	40	40	60	110	150	70	60	60	50	30	30	50	50	110 24
29	30	40	30	30	30	70	50	30	40	40	30	50	100	160	150	170	180	150	210				330	330	80 24
30						190	190	200	200	200	200	200	200	190	190	190	190	180	190	190	190	190	190	190	152 24
31	190	190	190	190	190	200	200	200	200	190	200	210	200	190	190	200	190	190	190	190	200	190			178 24
AVG	120	102	118	106	92	111	87	126	153	161	178	188	178	170	158	164	167	162	158	141	128	112	112	137	139
NO.	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	28	29	29	29	29	29	29	29	29	695
MAX	350	330	360	320	280	360	200	210	330	310	310	360	330	330	200	240	360	360	260	220	210	220	340	330	340

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
WASHINGTON CO
ROUTE 1, OCHELATA, OK.
(373140992A051)

1-HOUR DATA LISTING

WIND DIRECTION
A110211
CONCENTRATION IN DEGREES, COMPASS
INSTRUMENTAL SPOT READING

SEP 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
1			340	340	20	30	50	110	150	160	160	170	180	200	200	200	190	190	190	200	200	190			152	24
2									160	180	210	200	190	190	190	180	180	220							179	24
3			320					150	190	190	210	220	220	200	170	160	130	110		210	200		200	220	179	24
4						190		180	210	200	220	210	200	300	20	40	30	30	90	50	50	40	360	360	116	24
5	20	40	10		10	20	30	20	20	30	30	30	40	50	60	50	50	80	90			10	10	350	99	24
6	350	360	360	10	10	10	20	10	20	30	40	50	50	50	70	80	70	50	70	30	340	350	90	250	115	24
7			350	360	340	350	360	350	10	50	60	100	110	110	100	100	100	130	120	170					136	24
8						330		340		180	190	200	190	190	200	190	190	180	170	180	190	190	190	190	145	24
9	200	200		230	270			190		240	240	20	20	30	30	30	30	30	40	40	30	20	20	20	80	24
10	20	30	20	30	20	30	30	40	70	90	100	130	140	140	120	130	140	140	130	130	110	80	140	360	99	24
11																										
12	200	190	200	200	200	200	190	180	190	190	180	180	180	200	190	190	190	190	200	200	200	190	190	190	142	24
13	200	200	200	200	200	210	210	220	270	200	200	200	200	210	200	200	210	210	200	220	200	200	210	200	202	24
14	20	20	20	20	20	20	20	20	20	20	20	20	10	20	20	20	20	30	30	30	20	20	20	20	139	24
15	30	30	30	30	20	360	10	10	360	20	10	360	350	350	320	300	310	320	340	180	190	180	160	160	181	24
16																										
17	190	190	190	190	190	190	190	200	200	200	200	200	200	200	200	190	190	190	190	190	200	200	200	200	156	24
18	200	200	200	200	200	200	200	190	200	190	190	190	190	210	220	320	340	350	10	360	10	10	360	360	197	24
19	350	350	360	20	10	10	10	20	30	30	30	20	20	20	30	30	30	30	330						212	24
20						340		190	170	180	200	180	210	190	180	170	170	170	180	190	190	200	200	200	72	24
21	190	190	190	200	200	200	190	200	200	200	190	190	190	200	200	200	200	190	180	180	180	190	200	200	146	24
22	190	190	190			340	330	340	200	200	200	200	190	190	190	190	190	180	180	180	190	190	190	190	194	24
23	190	190	190	190	190	190	200	200	210	200	200	200	200	210	200	200	200	210	200	200	200	200	210	200	193	24
24	270	30	70	100	70	40	30	80	130	120	90	100	130	130	160	150	150	190			310	330	320		199	24
25	330		340	330	340	350		160	180	300	330	50	130	110	80	60	330	310	320	10	10	360	360	10	125	24
26	360	360	360	350	360	350	350	90	180	180	190	190	190	190	200	200	200	190	190	200	200	210	200	200	200	24
27	210	270	40	50	160	140	150	80	90	80	60	60	90	100	100	70	70	50	50	30	30	20	30	20	237	24
28	10	20	40	30	30	40	70	110	110	140	70	30	100	150	160	170	160	170	160	90	160	150	140	40	85	24
29	90	170	190	160	140	90	80	40	50	80	80	80	50	40	40	40									98	24
30													203.	203	200	200	200	200	200	200	200	200	200	200	89	16
AVG	125	111	145	112	103	146	107	142	138	145	150	148	158	166	142	143	155	157	138	128	132	136	152	157	200	12
NO.	29	29	29	29	29	29	29	29	29	29	29	29	30	30	30	30	29	29	29	29	29	29	29	29	139	
MAX	360	360	360	360	360	360	360	350	360	320	330	360	350	350	320	320	340	350	330	360	340	360	360	360	360	700

SECTION 4.10

SOLAR RADIATION

Preceding page blank

03207A

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

1-HOUR DATA LISTING

SOLAR RADIATION
A330111
CONCENTRATION IN LANGLEYS
INSTRUMENTAL PYRANOMETER

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A05)

JUL 1977

DAY	12	1	2	3	4	AM 5	6	7	8	9	10	11	12	1	2	3	4	PM 5	6	7	8	9	10	11	DAILY MEAN	NO.
1																									0	
2																									0	
3																									0	
4	.00	.00	.00	.00	.00	.04	.26	.56	.87	1.16	1.36	1.48	1.50	1.40	1.28	1.04	.80	.50	.16	.03	.00	.00	.00	.00	.52	24
5	.00	.00	.00	.00	.00	.04	.18	.58	.84	1.15	1.38	1.44	1.52	1.44	1.28	1.04	.80	.50	.20	.00	.00	.00	.00	.00	.51	24
6	.00	.00	.00	.00	.00	.04	.24	.56	.82	1.08	1.32	1.44	1.50	1.40	1.28	1.04	.80	.50	.20	.04	.00	.00	.00	.00	.51	24
7	.00	.00	.00	.00	.00	.04	.24	.32	.82	1.08	1.32	1.44	1.48	1.40	1.26	1.06	.80	.48	.20	.00	.00	.00	.00	.00	.50	24
8	.00	.00	.00	.00	.00	.04	.10	.30	.60	.80	1.08	1.08	1.00	.56	.88	.40	.34	.26	.08	.00	.00	.00	.00	.00	.32	24
9	.00	.00	.00	.00	.00	.04	.16	.44	.84	1.18	1.44	1.33	1.12	.72	.16	.46	.80	.56	.18	.04	.00	.00	.00	.00	.39	24
10	.00	.00	.00	.00	.00	.04	.14	.56	.84	1.08	1.32	1.50	1.54	1.44	1.38	1.00	.72	.46	.20	.03	.00	.00	.00	.00	.51	24
11	.00	.00	.00	.00	.00	.04	.20	.54	.84	.64	.96	1.36	1.46	1.40	1.30	1.04	.80	.50	.18	.03	.00	.00	.00	.00	.47	24
12	.00	.00	.00	.00	.00	.04	.20	.48	.78	.88	1.24	1.44	1.48	1.41	1.18	.84	.76	.48	.22	.04	.00	.00	.00	.00	.48	24
13	.00	.00	.00	.00	.00	.04	.23	.53	.82	1.10	1.32	1.48	1.48	1.44	1.30	1.06	.80	.52	.18	.04	.00	.00	.00	.00	.51	24
14	.00	.00	.00	.00	.00	.04	.20	.54	.78	1.10	1.30	1.42	1.46	1.39	1.26	1.00	.64	.44	.18	.05	.00	.00	.00	.00	.49	24
15	.00	.00	.00	.00	.00	.04	.20	.44	.76	1.04	1.26	1.40	1.24	.88	1.14	.78	.18	.24	.10	.04	.00	.00	.00	.00	.41	24
16	.00	.00	.00	.00	.00	.10	.32	.60	.88	1.14	1.24	1.40	1.48	1.04	.84	.92	.73	.44	.20	.04	.00	.00	.00	.00	.47	24
17	.00	.00	.00	.00	.00	.04	.16	.44	.72	1.00	1.23	1.36	1.42	.92	.80	.90	.63	.44	.20	.04	.00	.00	.00	.00	.43	24
18	.00	.00	.00	.00	.00	.04	.20	.48	.80	1.06	1.30	1.46	1.48	1.40	1.20	.96	.80	.50	.24	.04	.00	.00	.00	.00	.50	24
19	.00	.00	.00	.00	.00	.04	.19	.43	.72	1.00	1.24	1.40	1.44	1.36	1.24	1.03	.72	.47	.20	.04	.00	.00	.00	.00	.48	24
20	.00	.00	.00	.00	.00	.03	.17	.44	.74	1.00	1.24	1.42	1.38	1.36	1.24	1.04	.72	.48	.20	.04	.00	.00	.00	.00	.45	24
21	.00	.00	.00	.00	.00	.04	.20	.48	.76	1.02	1.26	1.28	1.20	1.24	.68	.06	.03	.00	.00	.00	.00	.00	.00	.00	.34	24
22	.00	.00	.00	.00	.00	.04	.16	.48	.78	1.00	1.23	1.37	1.30	1.36	1.28	1.10	.36	.10	.07	.02	.00	.00	.00	.00	.44	24
23	.00	.00	.00	.00	.00	.02	.12	.24	.70	1.00	1.20	1.36	1.40	1.36	1.26	1.02	.76	.48	.20	.04	.00	.00	.00	.00	.46	24
24	.00	.00	.00	.00	.00	.03	.24	.48	.64	1.04	1.20	1.36	1.44	1.40	1.27	1.01	.76	.48	.18	.04	.00	.00	.00	.00	.48	24
25	.00	.00	.00	.00	.00	.02	.14	.44	.72	1.00	1.20	1.36	1.40	1.36	1.24	1.06	.76	.48	.16	.02	.00	.00	.00	.00	.47	24
26	.00	.00	.00	.00	.00	.00	.19	.28	.24		.17	.30	.60	.74	.50	.30	.14	.20	.08	.01	.00	.00	.00	.00	.16	23
27	.00	.00	.00	.00	.00	.01	.07	.09	.25	.28	.30	.56	.70	.57	.48	.28	.30	.17	.06	.01	.00	.00	.00	.00	.17	24
28	.00	.00	.00	.00	.00	.01	.03	.12	.16	.40	.92	1.02	.94	.88	.94	.54	.50	.42	.18	.01	.00	.00	.00	.00	.30	24
29	.00	.00	.00	.00	.00	.01	.14	.42	.71	.92	1.10	1.00	.12	1.22	.76	.82	.73	.48	.16	.02	.00	.00	.00	.00	.36	24
30	.00	.00	.00	.00	.00	.01	.18	.44	.72	.98	1.22	1.37	1.47	1.36	1.22	.98	.73	.44	.16	.01	.00	.00	.00	.00	.47	24
31	.00	.00	.00	.00	.00	.02	.11	.20	.72	.98	1.20	1.34	1.20	1.38	.53	.17	.09	.17	.03	.00	.00	.00	.00	.00	.39	24
AVG	.00	.00	.00	.00	.00	.03	.17	.43	.70	.96	1.14	1.29	1.28	1.22	1.02	.83	.60	.40	.16	.03	.00	.00	.00	.00	.43	
NO.	28	28	28	28	28	28	28	28	28	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28		671
MAX	.00	.00	.00	.00	.00	.10	.32	.60	.88	1.18	1.44	1.50	1.54	1.44	1.38	1.10	.80	.54	.24	.08	.00	.00	.00	.00	1.54	

032078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A051

SOLAR RADIATION
A330111
CONCENTRATION IN LANGLEYS
INSTRUMENTAL PYRANOMETER

1-HOUR DATA LISTING

AUG 1977

DAY	AM 12	1	2	3	4	5	6	7	8	9	10	11	PM 12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN NO.	
1	.00	.00	.00	.00	.00	.01	.09	.36	.72	1.01	1.24	1.38	1.42	1.38	1.25	1.01	.76	.47	.16	.01	.00	.00	.00	.00	.47	24
2	.00	.00	.00	.00	.00	.00	.15	.44	.74	1.00	1.22	1.40	1.50	1.36	1.24	.97	.74	.44	.15	.02	.00	.00	.00	.00	.47	24
3	.00	.00	.00	.00	.00	.02	.08	.30	.50	.37	.82	1.36	1.41	1.39	1.22	1.01	.76	.42	.10	.01	.00	.00	.00	.00	.40	24
4	.00	.00	.00	.00	.00	.00	.00	.02	.03	.36	.72	.91	.78	.86	1.08	.72		.36	.10	.01	.00	.00	.00	.00	.26	23
5	.00	.00	.00	.00	.00	.01	.12	.42	.50	.93	.62	1.14	1.02	.66	.74	.48	.48	.21	.08	.04	.00	.00	.00	.00	.31	24
6	.00	.00	.00	.00	.00	.01	.10	.30	.36	.38	.88	1.38	1.30	.96	.48	.53	.70	.38	.12	.01	.00	.00	.00	.00	.33	24
7	.00	.00	.00	.00	.00	.02	.15	.44	.72	.98	1.21	1.34	1.43	1.36	1.16	.97	.64	.38	.10	.02	.00	.00	.00	.00	.46	24
8	.00	.00	.00	.00	.00	.02	.14	.30	.68	.98	1.21	1.37	1.44	1.42	1.22	.92	.70	.39	.11	.01	.00	.00	.00	.00	.45	24
9	.00	.00	.00	.00	.00	.02	.15	.48	.68	.96	1.16	1.26	1.31	1.33	1.08	.93	.72	.39	.11	.00	.00	.00	.00	.00	.44	24
10	.00	.00	.00	.00	.00	.01	.16	.46	.70	.80	1.09	1.23	1.19	1.41	1.23	.73	.21	.28	.07	.01	.00	.00	.00	.00	.40	24
11	.00	.00	.00	.00	.00	.02	.03	.25	.52	.37	.98	.91	.63	.52	.59	.32	.23	.13	.03	.01	.00	.00	.00	.00	.21	24
12	.00	.00	.00	.00	.00	.00	.04	.20	.31	.51	.73	.85	.54	.44	.35	.40	.29	.16	.05	.00	.00	.00	.00	.00	.20	24
13	.00	.00	.00	.00	.00	.00	.04		.42	.14	.03	.19	.05	.18	.42	.54	.45	.33	.08	.02	.00	.00	.00	.00	.12	23
14	.00	.00	.00	.00	.00	.01	.08	.18	.40	.89	1.16	1.31	1.30	.69	1.11	.53	.02	.00	.02	.00	.00	.00	.00	.00	.32	24
15	.00	.00	.00	.00	.00	.00	.11	.38	.66	.94			1.33	1.30	1.15	.93	.64	.35	.08	.01	.00	.00	.00	.00	.34	22
16	.00	.00	.00	.00	.00	.00	.08	.27	.40	.59	1.06	1.27	1.23	1.08	.89	.74	.62	.10	.03	.00	.00	.00	.00	.00	.35	24
17	.00	.00	.00	.00	.00	.00	.01	.06	.16	.16	.21	.17	.22	.35	.62	.40	.20	.30	.12	.01	.00	.00	.00	.00	.12	24
18	.00	.00	.00	.00	.00	.00	.12	.40	.70	.97	1.12	1.16	1.14	.52	.28	.31	.19	.12	.03	.01	.00	.00	.00	.00	.30	24
19	.00	.00	.00	.00	.00	.00	.03	.05	.10	.16	.20	.18	.40	.40		.20	.10	.03	.00	.00	.00	.00	.00	.00	.08	23
20	.00	.00	.00	.00	.00	.00	.03	.18	.32	.54	1.08		1.38	1.16	.90	.84	.58	.30	.08	.01	.00	.00	.00	.00	.32	23
21	.00	.00	.00	.00	.00	.00	.05	.20	.42	.24	.51	.76	.76	1.16	1.10	.93	.59	.33	.08	.01	.00	.00	.00	.00	.30	24
22	.00	.00	.00	.00	.00	.00	.10	.40	.67	.88	.84	1.02	.98	1.08	1.08	.90	.52	.31	.13	.02	.00	.00	.00	.00	.37	24
23	.00	.00	.00	.00	.00	.00	.03	.32	.48	.84	.63	1.21	1.33	1.24	1.12	.76	.58	.38	.12	.02	.00	.00	.00	.00	.38	24
24	.00	.00	.00	.00	.00	.00	.06		.68	.70	.84	1.10	1.03	.92	.84	.70	.58	.38	.06	.00	.00	.00	.00	.00	.34	23
25	.00	.00	.00	.00	.00	.00	.10	.24	.43	.86	1.10	1.14	.98	1.00	1.02	.88	.61	.30	.07	.02	.00	.00	.00	.00	.37	24
26	.00	.00	.00	.00	.00	.00	.10	.34	.68	.96	1.14	1.26	1.24	1.12	1.08	.84	.61	.24	.07	.00	.00	.00	.00	.00	.40	24
27	.00	.00	.00	.00	.00	.00	.11	.32	.74	1.00	1.22	1.38	1.41	1.30	1.14	.90	.66	.28	.04	.00	.00	.00	.00	.00	.44	24
28	.00	.00	.00	.00	.00	.00	.02	.10	.04	.05	.08	.09	.18	.18	.30	.14	.12	.04	.02	.00	.00	.00	.00	.00	.06	24
29	.00	.00	.00	.00	.00	.00	.02	.07	.24	.32	.42	.40	.80	.84	.62	.78	.56	.20	.08	.00	.00	.00	.00	.00	.22	24
30	.00	.00	.00	.00	.00	.00	.10	.20	.51	.83	1.06	1.30	1.24	1.18	1.04	.84	.52	.28	.07	.00	.00	.00	.00	.00	.38	24
31	.00	.00	.00	.00	.00	.00	.12	.24	.65	.72	1.16	1.08	1.22	1.12	1.02	.82	.58	.28	.08	.00	.00	.00	.00	.00	.38	24
AVG	.00	.00	.00	.00	.00	.00	.08	.27	.49	.66	.84	1.02	1.04	.96	.91	.71	.50	.28	.08	.01	.00	.00	.00	.00	.32	
NO.	31	31	31	31	31	31	31	29	31	31	30	29	31	31	30	31	30	31	31	31	31	31	31	31		737
MAX	.00	.00	.00	.00	.00	.02	.16	.48	.74	1.01	1.24	1.40	1.50	1.44	1.25	1.01	.76	.47	.16	.04	.00	.00	.00	1.50		

D32078

ENVIRONMENTAL PROTECTION AGENCY
SUMMER 77 OZONE STUDY

SOLAR RADIATION
A330111
CONCENTRATION IN LANGLEYS
INSTRUMENTAL PYRANOMETER

OKLAHOMA
OSAGE CO
OFF SR 20 8 MILES WEST OF SKIA
(372260995A05)

1-HOUR DATA LISTING

SEP 1977

DAY	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	DAILY MEAN	NO.
	AM													PM												
1	.00	.00	.00	.00	.00	.00	.03	.22	.63	.88	1.00	1.20	1.34	1.18	1.01	.39	.44	.28	.06	.00	.00	.00	.00	.00	.36	24
2	.00	.00	.00	.00	.00	.00	.10	.31	.66	.92	1.14	1.40	1.30	1.20	1.02	.63	.41	.25	.05	.00	.00	.00	.00	.00	.39	24
3	.00	.00	.00	.00	.00	.00	.10	.23	.60	.84	.82	1.22	1.30	.80	.51	.33	.48	.18	.04	.00	.00	.00	.00	.00	.28	24
4	.00	.00	.00	.00	.00	.00	.05	.16	.26	.45	.63	.86	.64	.86	.36	.12	.14	.09	.03	.00	.00	.00	.00	.00	.19	24
5	.00	.00	.00	.00	.00	.00	.00	.04	.14	.34	.40	.52	.86	.80	.33	.20	.14	.09	.04	.00	.00	.00	.00	.00	.13	24
6	.00	.00	.00	.00	.00	.00	.04	.14	.54	.82		.90	1.14	1.04	.92	.73	.47	.23	.05	.00	.00	.00	.00	.00	.28	23
7	.00	.00	.00	.00	.00	.00	.06	.24	.61	.71		1.12	.94	1.04	.86	.66	.40	.18	.05	.00	.00	.00	.00	.00	.29	23
8	.00	.00	.00	.00	.00	.00	.04	.22	.50	.76	.94	.82	.86	1.01	.82	.60	.47	.22	.05	.00	.00	.00	.00	.00	.30	24
9	.00	.00	.00	.00	.00	.00	.07	.30	.60	.82		.86	1.14	1.12	.96	.74	.48	.18	.05	.00	.00	.00	.00	.00	.32	23
10	.00	.00	.00	.00	.00	.00	.04	.14	.18	.12		1.18	1.04	.82	.89	.75	.46	.20	.04	.00	.00	.00	.00	.00	.25	23
11	.00	.00	.00	.00	.00	.00	.03	.02	.00	.00	.06	.22	.58	.58	.52	.52	.44	.20	.03	.00	.00	.00	.00	.00	.13	24
12	.00	.00	.00	.00	.00	.00	.04	.28	.62	.88	1.10	1.21	1.24	1.18	.94	.62	.10	.03	.03	.00	.00	.00	.00	.00	.34	24
13	.00	.00	.00	.00	.00	.00	.04	.04	.04	.06	.12		.42	.31	.14	.09	.10	.12	.05	.00	.00	.00	.00	.00	.07	23
14	.00	.00	.00	.00	.00	.00	.00	.05	.10	.12	.14	.17	.16	.16	.14	.12	.10	.04	.02	.00	.00	.00	.00	.00	.06	24
15	.00	.00	.00	.00	.00	.00	.00	.04	.08	.11		.42	.52	.50	.46	.70	.49	.20	.03	.00	.00	.00	.00	.00	.15	23
16	.00	.00	.00	.00	.00	.00	.00	.00	.06	.12	.20	.50	.61	.56	.82	.70	.47	.20	.03	.00	.00	.00	.00	.00	.18	24
17	.00	.00	.00	.00	.00	.00	.05	.12	.60	.84	1.00	.92	1.08	1.04	.58	.66	.45	.20	.03	.00	.00	.00	.00	.00	.32	24
18	.00	.00	.00	.00	.00	.00	.05	.28	.62	.90	1.20	1.24	1.32	1.22	.78	.72	.48	.17	.04	.00	.00	.00	.00	.00	.38	24
19	.00	.00	.00	.00	.00	.00	.05	.32	.65	.91	1.11	1.27	1.29	1.19	1.04	.80	.52	.22	.03	.00	.00	.00	.00	.00	.39	24
20	.00	.00	.00	.00	.00	.00	.05	.31	.62	.88	.70	.34	.30	1.00	.92	.66	.51	.18	.04	.00	.00	.00	.00	.00	.27	24
21	.00	.00	.00	.00	.00	.00	.05	.22	.54	.83	1.05	1.17	1.20	.98	.92	.70	.46	.19	.04	.00	.00	.00	.00	.00	.35	24
22	.00	.00	.00	.00	.00	.00	.00	.14	.52	.80	.98	1.12	1.14	1.10	.89	.54	.31	.15	.04	.00	.00	.00	.00	.00	.32	24
23	.00	.00	.00	.00	.00	.00	.03	.11	.29	.28	.72	.18	.50	.28	.32	.32	.20	.17	.03	.00	.00	.00	.00	.00	.11	24
24	.00	.00	.00	.00	.00	.00	.03	.12	.54	.52	.94	1.18	1.21	1.12	.98	.78	.49	.19	.03	.00	.00	.00	.00	.00	.34	24
25	.00	.00	.00	.00	.00	.00	.06	.25	.51	.83	1.03	1.18	1.19	1.11	.92	.74	.48	.16	.03	.00	.00	.00	.00	.00	.35	24
26	.00	.00	.00	.00	.00	.00	.05	.25	.56	.80	.95	1.10	1.12	1.13	.92	.68	.40	.14	.01	.00	.00	.00	.00	.00	.34	24
27	.00	.00	.00	.00	.00	.00	.04	.14	.50	.70	.84	1.06	.98	.99	.80	.66	.42	.14	.03	.00	.00	.00	.00	.00	.31	24
28	.00	.00	.00	.00	.00	.00	.00	.05	.11	.14	.14	.17	.10	.10	.11	.10	.10	.09	.03	.00	.00	.00	.00	.00	.05	24
29	.00	.00	.00	.00	.00	.00	.00	.07	.13	.20	.28	.40	.60	.60	.46	.48	.39	.13	.00	.00	.00	.00	.00	.00	.16	24
30	.00	.00	.00	.00	.00	.00	.04	.16	.42	.61	.83	1.02	1.12	.92	.63	.44	.15	.12	.02	.00	.00	.00	.00	.00	.27	24
AVG	.00	.00	.00	.00	.00	.00	.04	.17	.40	.57	.71	.84	.89	.84	.70	.54	.36	.17	.04	.00	.00	.00	.00	.00	.26	
NO.	30	30	30	30	30	30	30	30	30	30	25	29	30	30	30	30	30	30	30	30	30	30	30	30		714
MAX	.00	.00	.00	.00	.00	.00	.10	.32	.66	.92	1.20	1.40	1.34	1.22	1.04	.80	.52	.28	.06	.00	.00	.00	.00	.00	1.40	

SECTION 4.11

INDIVIDUAL HYDROCARBON SPECIES AT SURFACE SITES

Preceding page blank

QUALIFICATION STATEMENTS: HYDROCARBON SPECIES DATA

The individual hydrocarbon compounds that are listed in Sections 4.11 and 4.12 were determined by gas chromatography with flame ionization detection. Samples were collected from the surface station or aircraft sampling manifold and stored in stainless steel cylinders. Details of the sampling process are given in Appendix A of Volume I of this report. Studies of compound stability in both synthetic hydrocarbon blends and ambient air samples are discussed in Section 5.0 of Volume I.

The individual hydrocarbons were determined by the use of three separate chromatographic columns. The data obtained from each column are discussed and qualified in the following paragraphs. It should be stated, at the outset, that since these compounds were identified only on the basis of relative retention times on the chromatographic column as compared to known standards, there is no absolute assurance that some compounds, as identified, are indeed present, or that interfering unknown compounds having the same retention times are not present.

The sum of all the hydrocarbon species is termed total nonmethane hydrocarbons (NMHC). The user of these data should be aware that such a sum is likely to underestimate the hydrocarbon burden of the atmosphere for several reasons: (1) not all hydrocarbons present in the ambient air were searched for or quantified; (2) oxygenated species were not quantified; and (3) inevitable losses occurred during sampling, storage, and in the chromatographic analysis.

C_2-C_5 Compounds: 100-200 mesh Durapak® phenylisocyanate column

The results from this column are believed to be very good. Separation of compound peaks was adequate and a distinct pattern was present. However, the

Preceding page blank

compounds n-pentane and cyclopentane could not be separated, and they are reported together. It is expected, based on other findings in Tulsa (Arnts) that n-pentane is predominant over cyclopentane in city samples by a ratio of 5:1 through 8:1.

A second problem, not caused by the column, was a large, positive interference of ethylene in some samples, most often those taken at the Liberty Mounds site. This interference is almost certainly due to leakage of ethylene from the chemiluminescence ozone monitor at that site. Because of this problem, all ethylene determinations from the Liberty Mounds samples were invalidated and removed from the data base. Other measurements made in Tulsa in 1978 (Arnts) show only about 1 ppbC of ethylene to be present at this site.

Aliphatic Compounds (C_5-C_{12}): SCOT OV-101 column

A problem was encountered in using this column. In many samples, a series of large, usually broad, background peaks appeared in the chromatograms. These background peaks, which were not reproducible, are believed to be due to the passage of the column support coating to the flame ionization detector. Removal of the column coating may have been caused by the presence of water vapor in the ambient air samples. The effect was not noted during calibration checks in which dry air mixtures of known hydrocarbons were employed.

The effect of these background peaks was to cause erroneously high concentrations to be recorded by the automatic data acquisition system and, in some cases, to cause complete obscuration of expected hydrocarbon peaks. This problem was resolved, to the best of our abilities, by visual examination of each chromatogram. This entailed identification of peaks by relative retention time and pattern recognition techniques based on similar retention times and patterns found for known mixtures. If the location of an expected peak was completely obscured by the background peak, that particular compound was invalidated in the data listing. For example, the compound cyclohexane does not appear in the listing since its peak was obscured in almost every case.

Trans-2-pentene and isoprene were found to elute from the column with nearly identical retention times. They are reported together. However, concentrations of isoprene are expected to be quite small, on the order of 1 ppbC, as shown in samples collected in Tulsa by EPA, ESRL in 1978 (Arnts).

Very low or zero concentrations of the long chain alkanes n-decane, n-undecane, and n-dodecane were found in most samples, even in the city. GC/MS studies and followup studies by Arnts indicate that these compounds were in fact present in Tulsa air at fairly low concentrations (3.74 ppbC in the case of n-decane). It should be noted that significant "decay" or loss of concentration of such long chain hydrocarbons has been noted in previous RTI laboratory studies (refer to Section 5.0, Volume I).

Aromatic Compounds (C_6-C_{10}): SCOT MBMA column

This column appeared to perform quite well, except for difficulties in separating benzene. Peaks were generally sharp and distinct and easily recognized patterns could be established to aid hand-interpretation of each chromatogram.

The benzene peak appeared near the beginning of the chromatogram in a region crowded with other peaks. The peak location was established by visual comparison to known standards and its separation from toluene. The quantitation, however, was based on the area count calculated by a computerized data acquisition system (HP System No. 3352B). It is likely that column background in the region of benzene's elution was also included in the area count, thus giving a larger concentration of benzene than was actually present. In addition to the column background problem, another possible reason for the finding that benzene concentration is oftentimes greater than toluene is that in eastern Oklahoma there may be sources of benzene other than the automobile; as a result, hydrocarbon ratios unlike those associated with vehicular emissions may be present.

Other investigators (Lonneman, Hester) have found toluene concentrations to be consistently higher than those of benzene. The data reported here are usually the opposite. A quantitative comparison of benzene and toluene from a single ambient air sample taken at the Post Office site and analyzed by GC/MS shows that toluene is greater than benzene by a ratio of 8.7:1.

The compound 1,2,4-trimethylbenzene occurs in high concentrations in some of the samples. This compound was also identified in samples subjected to gas chromatography/mass spectrometry analysis. Validation of the chromatograms showed that a distinct peak was present. The source of this compound was not determined. It is possible that the peak identified as 1,2,4-trimethylbenzene is not entirely that single compound.

References

Arnts, R. R., "Results of Ambient Hydrocarbon Analyses of July 27 (1978) Tulsa Air Samples," EPA memorandum, September 8, 1978.

Lonneman, W. A., USEPA, Personal Communication, 1978.

Hester, Norman E., and Meyer, Raymond A., "A Sensitive Technique for Measurement of Benzene and Alkylbenzenes in Air," Environmental Science and Technology 13, 107 (1979).

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1000	1001	1002	1003	1004	1005	1006
DATE:	7/14	7/15	7/16	7/17	7/18	7/19	7/20
Ethane	39.8	59.4	35.6	35.0	10.4	21.2	7.8
Ethylene	******	******	******	******	******	******	******
Propane	37.8	105.3	57.9	45.9	9.6	32.4	2.1
Acetylene	2.2	4.4	9.4	3.6	1.0	2.2	0.4
Isobutane	12.0	16.4	9.2	6.0	2.0	6.8	10.0
n-Butane	24.0	36.8	16.4	13.6	6.0	11.6	2.0
Propylene	3.9	6.3	5.7	5.1	3.6	0.0	3.6
Isopentane	18.5	103.5	11.5	11.0	3.0	10.0	1.5
n-Pentane + Cyclopentane	11.0	1491.0	0.0	5.5	1.0	5.5	1.0
Trans-2-pentene + Isoprene	******	******	******	******	******	4.5	******
2,2-Dimethylbutane	******	******	******	******	******	0.0	0.0
2-Methylpentane	******	******	******	******	******	******	******
3-Methylpentane	******	******	******	******	******	******	******
1-Hexene	******	******	******	******	******	0.0	0.0
n-Hexane	******	******	******	******	******	4.4	******
2,4-Dimethylpentane	******	******	******	******	******	******	0.0
2-Methylhexane	******	******	******	******	******	******	******
3-Methylhexane	******	******	******	******	******	******	******
2,2,4-Trimethylpentane	******	******	******	******	******	******	******
n-Heptane	******	******	******	******	******	1.6	******
Methylcyclohexane	******	******	******	******	******	0.0	******
2,3,4-Trimethylpentane	******	******	******	******	******	0.0	0.0
2-Methylheptane	******	******	******	******	******	5.9	0.8
3-Methylheptane	******	******	******	******	******	2.4	0.8
n-Octane	******	******	******	******	******	2.0	0.0
n-Nonane	******	******	******	******	******	2.6	0.3
n-Decane	******	******	******	******	******	1.2	******
n-Undecane	******	******	******	******	******	0.0	0.0
n-Dodecane	******	******	******	******	******	0.0	0.0
Benzene	23.2	47.5	6.6	12.9	21.0	7.0	56.4
Toluene	3.5	19.8	1.4	69.3	1.3	6.8	6.3
Ethylbenzene	0.3	80.0	1.3	6.4	2.8	1.8	2.1
p-Xylene + A-Pinene	0.1	0.9	0.0	5.9	3.4	1.9	1.3
m-Xylene	0.1	3.0	0.0	8.9	3.3	2.5	6.2
o-Xylene	0.1	2.4	0.0	6.6	1.0	1.8	2.5
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.2	5.8	2.1	39.7	0.8	7.7	2.0
m-Ethyltoluene	0.5	1.3	0.6	18.1	5.8	0.0	3.8
1,3,5-Trimethylbenzene	0.3	0.0	0.0	37.8	3.1	0.0	2.9
t-Butylbenzene	0.0	0.0	0.0	52.8	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	45.7	0.0	0.0	3.1
1,2,4-Trimethylbenzene	0.4	4.0	0.4	66.8	1.0	0.0	0.0
1,2,3-Trimethylbenzene	0.0	0.0	0.0	36.4	1.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	12.9	0.0	0.0	0.0
Sum of the Alkenes	3.9	6.3	5.7	5.1	3.6	4.5	3.6
Sum of the Alkanes	143.1	1812.4	130.6	117.0	32.0	107.6	26.3
Sum of the Aromatics	28.7	164.5	12.4	420.2	44.5	29.5	86.6
Sum of all compounds, NMHC	177.9	1987.6	158.1	545.9	81.1	143.8	116.9

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1007	1008	1009	1010	1011	1012	1013
DATE:	7/21	7/22	7/23	7/24	7/25	7/26	7/27
Ethane	31.8	86.2	43.4	******	******	******	******
Ethylene	******	******	******	******	******	******	******
Propane	33.3	144.6	80.7	******	******	******	******
Acetylene	1.0	1.4	3.6	******	******	******	******
Isobutane	10.0	30.8	18.0	******	******	******	******
n-Butane	22.0	78.0	46.8	******	******	******	******
Propylene	5.1	6.6	8.1	******	******	******	******
Isopentane	20.0	40.0	25.0	******	******	******	******
n-Pentane + Cyclopentane	34.5	47.0	28.5	******	******	******	******
Trans-2-pentene + Isoprene	3.0	2.6	4.4	******	******	******	******
2,2-Dimethylbutane	0.0	0.0	0.0	******	******	******	******
2-Methylpentane	******	9.5	3.7	******	******	******	******
3-Methylpentane	27.7	18.4	9.1	******	******	******	******
1-Hexene	0.0	3.8	0.0	******	******	******	******
n-Hexane	4.4	11.2	1.2	******	******	******	******
2,4-Dimethylpentane	******	0.0	0.0	******	******	******	******
2-Methylhexane	******	2.3	0.0	******	******	******	******
3-Methylhexane	******	9.4	0.0	******	******	******	******
2,2,4-Trimethylpentane	******	0.0	0.0	******	******	******	******
n-Heptane	******	3.4	0.0	******	******	******	******
Methylcyclohexane	******	0.7	0.0	******	******	******	******
2,3,4-Trimethylpentane	******	0.0	0.0	******	******	******	******
2-Methylheptane	******	0.6	0.0	******	******	******	******
3-Methylheptane	******	0.3	0.0	******	******	******	******
n-Octane	3.5	0.0	0.7	******	******	******	******
n-Nonane	1.9	0.5	0.6	******	******	******	******
n-Decane	0.1	0.0	0.0	******	******	******	******
n-Undecane	0.0	0.0	0.0	******	******	******	******
n-Dodecane	0.0	0.0	0.0	******	******	******	******
Benzene	39.2	30.9	39.6	******	******	******	******
Toluene	1.2	7.5	11.5	******	******	******	******
Ethylbenzene	0.3	0.1	0.3	******	******	******	******
p-Xylene + A-Pinene	0.4	0.2	0.3	******	******	******	******
m-Xylene	0.4	0.2	0.5	******	******	******	******
o-Xylene	0.1	0.2	0.9	******	******	******	******
B-Pinene	0.0	0.0	0.0	******	******	******	******
n-Propylbenzene	0.0	0.0	0.0	******	******	******	******
m-Ethyltoluene	0.0	0.0	0.0	******	******	******	******
1,3,5-Trimethylbenzene	0.0	0.0	0.0	******	******	******	******
t-Butylbenzene	0.0	0.0	0.0	******	******	******	******
o-Ethyltoluene	0.0	0.0	0.0	******	******	******	******
1,2,4-Trimethylbenzene	0.0	0.0	0.0	******	******	******	******
1,2,3-Trimethylbenzene	0.0	0.0	0.0	******	******	******	******
n-Butylbenzene	0.4	0.0	0.0	******	******	******	******
Sum of the Alkenes	8.1	13.0	12.5	0.0	0.0	0.0	0.0
Sum of the Alkanes	189.2	482.9	257.7	0.0	0.0	0.0	0.0
Sum of the Aromatics	42.0	39.1	53.1	0.0	0.0	0.0	0.0
Sum of all compounds, NMHC	240.3	536.4	326.9	0.0	0.0	0.0	0.0

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1014	1015	1016	1017	1018	1019	1020
DATE:	7/28	7/29	7/30	7/31	8/ 1	8/ 2	8/ 3
Ethane	******	******	19.4	26.0	******	71.8	45.8
Ethylene	******	******	******	******	******	******	******
Propane	******	******	18.0	46.8	******	119.1	66.0
Acetylene	******	******	2.0	0.6	******	4.4	0.6
Isobutane	******	******	4.0	6.8	******	20.0	9.6
n-Butane	******	******	8.0	18.4	******	48.8	25.8
Propylene	******	******	5.4	7.8	******	5.7	5.4
Isopentane	******	******	5.0	7.5	******	24.0	13.0
n-Pentane + Cyclopentane	******	******	5.0	2.0	******	28.0	13.0
Trans-2-pentene + Isoprene	******	******	3.0	1.1	******	3.3	1.6
2,2-Dimethylbutane	******	******	******	0.0	******	0.0	0.0
2-Methylpentane	******	******	******	******	******	8.4	2.5
3-Methylpentane	******	******	******	******	******	******	******
1-Hexene	******	******	******	0.2	******	0.0	0.0
n-Hexane	******	******	0.0	0.7	******	13.3	2.4
2,4-Dimethylpentane	******	******	0.0	0.0	******	0.0	0.0
2-Methylhexane	******	******	0.0	1.1	******	0.0	0.2
3-Methylhexane	******	******	0.0	0.0	******	0.0	0.2
2,2,4-Trimethylpentane	******	******	******	******	******	******	0.0
n-Heptane	******	******	0.0	0.4	******	1.5	0.6
Methylcyclohexane	******	******	******	******	******	0.0	0.0
2,3,4-Trimethylpentane	******	******	******	******	******	8.4	2.5
2-Methylheptane	******	******	0.0	******	******	3.0	1.3
3-Methylheptane	******	******	0.0	2.8	******	0.0	0.1
n-Octane	******	******	0.7	0.0	******	1.1	0.0
n-Nonane	******	******	0.5	0.4	******	1.3	0.1
n-Decane	******	******	0.0	0.0	******	0.0	0.1
n-Undecane	******	******	0.0	0.0	******	0.0	0.0
n-Dodecane	******	******	0.0	0.0	******	0.0	0.0
Benzene	******	******	33.6	65.7	******	43.8	5.6
Toluene	******	******	33.6	3.4	******	10.5	3.5
Ethylbenzene	******	******	4.0	1.0	******	3.6	1.6
p-Xylene + A-Pinene	******	******	1.6	1.9	******	0.1	0.9
m-Xylene	******	******	1.4	2.2	******	0.4	0.9
o-Xylene	******	******	0.8	1.3	******	1.6	1.0
B-Pinene	******	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	******	******	14.4	2.8	******	1.7	3.6
m-Ethyltoluene	******	******	0.0	1.6	******	0.2	0.0
1,3,5-Trimethylbenzene	******	******	1.0	2.7	******	0.1	1.0
t-Butylbenzene	******	******	0.0	0.0	******	0.0	0.0
o-Ethyltoluene	******	******	0.0	2.2	******	0.2	0.0
1,2,4-Trimethylbenzene	******	******	1.0	0.0	******	0.1	0.0
1,2,3-Trimethylbenzene	******	******	0.0	0.0	******	0.0	0.0
n-Butylbenzene	******	******	0.0	0.0	******	0.0	0.0
Sum of the Alkenes	0.0	0.0	8.4	9.1	0.0	9.0	7.0
Sum of the Alkanes	0.0	0.0	60.6	112.9	0.0	348.7	183.2
Sum of the Aromatics	0.0	0.0	91.4	84.8	0.0	62.3	18.1
Sum of all compounds, NMHC	0.0	0.0	162.4	207.4	0.0	424.4	208.9

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1021	1022	1023	1024	1025	1026	1027
DATE:	8/4	8/5	8/6	8/7	8/8	8/9	8/10
Ethane	19.0	45.4	******	17.2	14.0	17.4	34.4
Ethylene	******	******	******	******	******	******	******
Propane	29.7	70.5	******	18.3	16.2	18.3	38.7
Acetylene	1.2	4.0	******	0.8	1.0	1.2	2.0
Isobutane	5.6	9.7	******	6.0	5.6	6.4	9.2
n-Butane	14.0	21.2	******	9.2	9.2	10.0	20.8
Propylene	3.6	7.8	******	7.2	3.9	6.3	5.1
Isopentane	8.0	16.5	******	0.0	7.5	12.5	9.5
n-Pentane + Cyclopentane	3.0	12.5	******	4.5	6.0	15.0	9.5
Trans-2-pentene + Isoprene	1.2	3.7	******	1.0	2.4	3.3	1.3
2,2-Dimethylbutane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylpentane	0.6	5.8	******	******	******	******	******
3-Methylpentane	1.1	******	******	******	******	******	******
1-Hexene	0.0	0.0	******	0.0	0.0	******	0.0
n-Hexane	1.4	3.7	******	0.7	1.3	0.3	******
2,4-Dimethylpentane	0.0	0.0	******	0.1	0.1	0.0	0.0
2-Methylhexane	2.8	1.9	******	0.0	0.1	0.0	7.2
3-Methylhexane	0.0	3.9	******	0.0	******	0.0	5.6
2,2,4-Trimethylpentane	******	0.0	******	******	******	******	0.0
n-Heptane	1.0	1.2	******	0.8	0.3	4.6	******
Methylcyclohexane	0.8	1.3	******	******	2.4	2.9	******
2,3,4-Trimethylpentane	0.0	0.0	******	0.0	0.0	******	0.0
2-Methylheptane	0.3	0.0	******	******	41.9	******	3.6
3-Methylheptane	0.0	0.0	******	******	0.7	1.1	0.0
n-Octane	0.1	0.6	******	0.0	1.3	0.0	0.0
n-Nonane	0.0	0.0	******	0.2	0.8	0.1	0.0
n-Decane	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	******	0.0	0.0	0.0	0.0
Benzene	1.4	******	******	2.4	38.1	24.7	30.6
Toluene	2.4	******	******	5.1	32.2	1.4	7.9
Ethylbenzene	0.0	******	******	3.5	0.4	0.5	6.5
p-Xylene + A-Pinene	0.0	******	******	0.0	1.3	1.0	5.6
m-Xylene	0.0	******	******	0.0	6.2	4.7	5.0
o-Xylene	0.0	******	******	0.0	1.6	1.9	0.7
B-Pinene	0.0	******	******	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	******	******	0.0	12.0	18.5	3.6
m-Ethyltoluene	0.0	******	******	0.0	1.4	1.8	1.3
1,3,5-Trimethylbenzene	0.0	******	******	0.0	2.5	2.0	2.1
t-Butylbenzene	0.0	******	******	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	******	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	******	******	0.0	112.5	67.5	3.6
1,2,3-Trimethylbenzene	0.0	******	******	0.0	0.0	0.0	2.3
n-Butylbenzene	0.0	******	******	0.0	0.0	0.0	0.0
Sum of the Alkenes	4.8	11.5	0.0	8.2	6.3	9.6	6.4
Sum of the Alkanes	87.4	194.2	0.0	57.0	107.4	88.6	138.5
Sum of the Aromatics	3.8	0.0	0.0	11.0	208.2	124.0	69.2
Sum of all compounds, NMHC	97.2	209.7	0.0	77.0	322.9	223.4	216.1

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1028	1029	1030	1031	1032	1033	1034
DATE:	8/11	8/12	8/13	8/14	8/15	8/16	8/17
Ethane	28.6	14.4	35.6	28.6	63.2	17.0	26.0
Ethylene	******	******	******	******	******	******	******
Propane	31.8	15.0	45.9	93.3	72.6	17.7	63.0
Acetylene	1.8	2.8	1.2	1.3	0.0	0.0	1.6
Isobutane	9.2	4.0	7.6	7.6	16.0	4.4	8.0
n-Butane	18.4	9.6	16.4	16.8	35.6	9.2	16.0
Propylene	7.8	7.2	9.3	5.4	7.8	8.0	6.0
Isopentane	9.5	6.0	9.5	12.5	19.5	10.0	10.0
n-Pentane + Cyclopentane	9.5	6.0	7.5	10.0	20.0	6.0	6.0
Trans-2-pentene + Isoprene	1.5	0.9	3.5	1.6	0.7	3.4	0.4
2,2-Dimethylbutane	0.1	0.1	0.0	0.0	0.0	0.0	0.3
2-Methylpentane	******	******	******	2.8	******	******	******
3-Methylpentane	******	******	******	17.7	******	******	******
1-Hexene	0.2	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.6	1.1	2.5	2.4	5.7	0.9	1.4
2,4-Dimethylpentane	0.0	0.0	0.0	0.1	0.0	0.0	0.4
2-Methylhexane	0.3	0.2	0.1	2.0	0.8	0.0	0.7
3-Methylhexane	0.2	0.7	4.6	******	0.6	0.0	0.7
2,2,4-Trimethylpentane	0.0	0.0	0.0	******	1.0	******	3.2
n-Heptane	0.5	1.5	0.8	0.7	0.7	0.8	******
Methylcyclohexane	2.1	0.0	0.0	0.5	******	2.3	******
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	0.0	******	******
2-Methylheptane	1.9	2.9	0.6	******	1.0	******	0.8
3-Methylheptane	0.7	0.4	0.0	0.3	0.2	******	0.0
n-Octane	0.2	0.4	0.0	0.9	0.3	******	0.2
n-Nonane	0.1	0.3	0.1	0.1	0.2	0.1	0.9
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.1
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	15.6	19.2	10.9	******	14.5	******	9.2
Toluene	67.2	5.2	4.9	******	8.7	******	2.5
Ethylbenzene	18.4	1.3	0.7	******	5.3	******	2.4
p-Xylene + A-Pinene	0.0	2.6	1.6	******	3.9	******	1.0
m-Xylene	0.0	3.9	3.6	******	5.8	******	2.2
o-Xylene	0.0	******	1.2	******	1.5	******	1.5
B-Pinene	0.0	0.0	0.0	******	0.0	******	0.0
n-Propylbenzene	0.0	1.1	2.7	******	20.2	******	1.4
m-Ethyltoluene	0.0	2.2	4.3	******	0.7	******	0.3
1,3,5-Trimethylbenzene	0.0	1.8	0.9	******	0.0	******	0.2
t-Butylbenzene	0.0	0.0	0.0	******	0.6	******	0.0
o-Ethyltoluene	0.0	0.7	0.0	******	0.0	******	0.0
1,2,4-Trimethylbenzene	0.0	1.7	4.3	******	30.6	******	45.9
1,2,3-Trimethylbenzene	0.0	5.3	0.6	******	2.1	******	0.5
n-Butylbenzene	0.0	11.1	0.0	******	3.4	******	1.6
Sum of the Alkenes	9.5	8.1	12.8	7.0	8.5	11.4	6.4
Sum of the Alkanes	113.7	62.6	131.2	196.3	237.4	68.4	137.7
Sum of the Aromatics	101.2	56.1	35.7	0.0	97.3	0.0	68.7
Sum of all compounds, NMHC	226.2	129.6	180.9	204.6	343.2	79.8	214.4

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1035	1036	1037	1038	1039	1040	1041
DATE:	8/18	8/19	8/20	8/21	8/22	8/23	8/24
Ethane	27.2	40.2	44.8	89.4	185.8	23.8	46.4
Ethylene	******	******	******	******	******	******	******
Propane	33.9	109.8	74.4	123.3	348.6	66.0	58.2
Acetylene	8.8	2.2	4.8	2.0	7.4	2.2	2.6
Isobutane	10.0	9.6	10.4	22.4	63.2	6.4	11.2
n-Butane	30.4	23.6	25.2	52.8	152.8	14.4	31.2
Propylene	0.0	3.0	11.7	3.9	6.9	3.3	3.0
Isopentane	******	11.0	42.5	33.0	65.5	10.0	23.5
n-Pentane + Cyclopentane	******	12.5	******	113.0	97.5	5.0	16.0
Trans-2-pentene + Isoprene	0.0	0.0	******	1.0	3.5	0.0	1.4
2,2-Dimethylbutane	0.0	0.0	******	0.0	0.0	0.0	0.2
2-Methylpentane	******	******	******	9.3	13.5	0.0	******
3-Methylpentane	******	******	******	23.7	21.5	0.0	******
1-Hexene	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Hexane	10.7	2.4	******	7.4	14.7	0.8	0.2
2,4-Dimethylpentane	0.0	0.0	******	1.0	0.0	0.0	0.1
2-Methylhexane	10.9	0.2	******	2.4	5.4	******	0.1
3-Methylhexane	2.5	0.3	******	1.0	1.4	0.0	0.6
2,2,4-Trimethylpentane	3.4	0.0	******	5.9	9.6	0.0	3.6
n-Heptane	1.6	0.0	******	1.7	3.1	0.0	0.7
Methylcyclohexane	******	******	******	0.0	0.7	0.0	******
2,3,4-Trimethylpentane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylheptane	15.2	0.5	******	16.7	1.9	0.0	0.9
3-Methylheptane	0.8	0.0	******	4.8	0.8	0.0	0.4
n-Octane	3.2	0.0	******	0.8	0.9	0.0	1.1
n-Nonane	0.0	0.0	******	0.1	0.2	0.0	0.1
n-Decane	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	******	0.0	0.0	0.0	0.0
Benzene	14.7	12.6	29.4	13.2	22.2	2.7	8.0
Toluene	11.2	1.2	3.9	3.1	4.6	1.3	1.7
Ethylbenzene	******	0.5	26.9	7.9	0.9	0.1	0.3
p-Xylene + A-Pinene	0.5	0.1	0.2	0.1	1.1	0.1	0.3
m-Xylene	7.0	0.3	0.8	0.3	5.1	0.1	0.5
o-Xylene	5.8	0.2	0.4	0.2	2.4	0.1	0.4
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	22.5	1.0	0.7	0.0	0.8	0.0	0.0
m-Ethyltoluene	3.8	0.3	0.0	0.0	0.1	0.0	0.0
1,3,5-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.6
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.8	1.6	0.8	1.0	0.3	0.0	2.2
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	0.0	3.0	11.7	4.9	10.4	3.3	4.4
Sum of the Alkanes	149.8	210.1	197.3	508.7	987.1	126.4	194.5
Sum of the Aromatics	66.3	17.8	63.1	25.8	37.5	4.4	14.0
Sum of all compounds, NMHC	224.9	233.1	276.9	541.4	1042.4	136.3	215.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1042	1043	1045	1046	1047	1048	1049
DATE:	8/25	8/26	8/27	8/28	8/29	8/30	8/31
Ethane	18.8	26.0	10.4	15.2	12.4	32.6	33.8
Ethylene	******	******	******	******	******	******	******
Propane	60.6	27.0	11.4	14.7	21.0	******	40.2
Acetylene	0.8	1.6	0.6	0.6	0.8	1.0	0.6
Isobutane	6.0	8.4	5.2	5.6	3.2	9.6	8.0
n-Butane	12.8	16.8	9.2	11.6	7.6	19.6	15.2
Propylene	1.2	5.4	0.0	3.6	2.4	4.8	6.0
Isopentane	0.5	11.0	6.5	8.5	4.0	14.0	10.0
n-Pentane + Cyclopentane	6.0	6.0	2.0	2.0	3.5	7.0	1.5
Trans-2-pentene + Isoprene	0.9	0.9	3.4	1.8	0.0	2.9	2.0
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	******	1.0	******	******	******	******	1.3
3-Methylpentane	******	8.4	******	******	******	******	4.7
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.5	1.2	0.4	0.8	0.8	0.6	0.9
2,4-Dimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylhexane	1.2	0.5	0.0	******	******	0.1	0.0
3-Methylhexane	0.0	0.0	0.0	0.0	0.0	0.1	0.0
2,2,4-Trimethylpentane	0.0	******	0.0	******	0.0	0.0	0.0
n-Heptane	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Methylcyclohexane	******	******	0.0	0.0	1.4	0.0	******
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	0.0	0.0	0.0
2-Methylheptane	0.0	0.0	0.7	17.6	1.1	0.5	0.5
3-Methylheptane	0.0	0.0	0.0	0.3	0.3	0.0	0.0
n-Octane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Nonane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	14.3	6.9	1.2	1.0	4.0	5.4	5.0
Toluene	1.6	4.3	1.0	4.5	1.9	4.9	3.8
Ethylbenzene	0.0	0.0	0.0	0.0	0.3	0.0	1.3
p-Xylene + A-Pinene	0.0	0.0	0.0	0.0	0.1	0.0	0.1
m-Xylene	0.0	0.0	0.0	0.0	0.1	0.0	0.1
o-Xylene	0.0	0.0	0.0	0.0	0.1	0.0	0.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.6
m-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1,3,5-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	18.0
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Sum of the Alkenes	2.1	6.3	3.4	5.4	2.4	7.7	8.0
Sum of the Alkanes	106.4	106.3	45.8	76.3	55.3	84.3	116.1
Sum of the Aromatics	15.9	11.2	2.2	5.5	6.5	10.3	29.2
Sum of all compounds, NMHC	125.2	125.4	52.0	87.8	65.0	103.3	153.9

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA 0600-0900 CDT	SAMPLE NUMBER:	1051	1052	1054	1056	1057	1058	1059
	DATE:	9/1	9/2	9/3	9/4	9/5	9/6	9/7
Ethane		82.2	66.2	91.7	******	10.2	38.2	37.4
Ethylene		******	******	******	******	******	******	******
Propane		77.1	104.4	235.2	******	******	******	******
Acetylene		0.6	1.0	2.0	******	2.0	4.6	4.0
Isobutane		19.2	16.8	33.0	******	2.0	34.8	12.0
n-Butane		47.2	36.0	63.6	******	8.0	102.4	30.4
Propylene		1.8	2.0	2.6	******	0.0	5.1	1.5
Isopentane		25.5	24.0	35.8	******	0.0	98.0	21.0
n-Pentane + Cyclopentane		21.0	18.0	30.3	******	1.5	62.5	17.5
Trans-2-pentene + Isoprene		2.4	1.5	3.1	******	1.3	8.7	2.0
2,2-Dimethylbutane		0.4	0.0	0.0	******	0.0	0.0	0.0
2-Methylpentane		0.7	1.7	4.4	******	******	22.4	2.9
3-Methylpentane		2.9	8.5	12.0	******	******	37.7	8.9
1-Hexene		0.0	0.0	0.0	******	0.0	0.0	0.0
n-Hexane		4.2	1.2	6.5	******	0.7	24.5	2.2
2,4-Dimethylpentane		0.0	******	0.0	******	0.0	10.7	0.0
2-Methylhexane		1.6	0.3	2.1	******	0.0	17.9	4.9
3-Methylhexane		0.3	0.2	0.8	******	0.5	2.1	0.5
2,2,4-Trimethylpentane		3.6	0.0	10.4	******	2.4	21.6	10.4
n-Heptane		1.4	2.8	1.0	******	0.0	1.0	0.7
Methylcyclohexane		******	0.0	2.9	******	******	1.0	******
2,3,4-Trimethylpentane		0.0	0.0	0.0	******	0.0	3.2	0.0
2-Methylheptane		1.0	0.0	7.6	******	0.0	******	2.3
3-Methylheptane		0.2	0.0	1.6	******	0.0	******	0.3
n-Octane		0.8	0.0	6.5	******	0.0	1.6	******
n-Nonane		0.0	0.0	0.4	******	0.0	0.1	0.1
n-Decane		0.0	0.0	0.0	******	0.0	0.1	0.0
n-Undecane		0.0	0.0	0.0	******	0.0	0.0	0.0
n-Dodecane		0.0	0.0	0.0	******	0.0	0.0	0.0
Benzene		10.8	15.6	26.6	******	4.8	15.2	8.5
Toluene		3.0	2.1	11.2	******	8.0	5.6	8.4
Ethylbenzene		0.6	0.0	3.2	******	0.3	0.7	3.4
p-Xylene + A-Pinene		0.3	0.1	4.0	******	0.1	0.6	0.7
m-Xylene		0.7	0.1	3.4	******	0.1	1.6	1.0
o-Xylene		0.6	0.1	3.2	******	0.1	1.0	0.9
B-Pinene		0.0	0.0	0.0	******	0.0	0.0	0.0
n-Propylbenzene		0.5	0.0	2.9	******	1.0	1.3	3.8
m-Ethyltoluene		0.0	0.0	0.0	******	0.6	0.4	0.6
1,3,5-Trimethylbenzene		0.0	0.1	1.3	******	0.0	0.4	0.7
t-Butylbenzene		0.0	0.0	0.0	******	0.0	0.0	0.0
o-Ethyltoluene		0.0	0.0	0.0	******	0.0	0.0	0.0
1,2,4-Trimethylbenzene		3.2	0.1	1.0	******	0.0	2.7	39.3
1,2,3-Trimethylbenzene		0.0	0.1	1.0	******	0.0	0.0	2.3
n-Butylbenzene		0.0	0.0	8.3	******	0.0	0.0	0.0
Sum of the Alkenes		4.2	3.5	5.7	0.0	1.3	13.8	3.5
Sum of the Alkanes		289.3	280.1	545.8	0.0	25.3	479.8	151.5
Sum of the Aromatics		19.7	18.3	66.1	0.0	15.0	29.5	69.6
Sum of all compounds, NMHC		313.8	302.9	619.6	0.0	43.6	527.7	228.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1060	1062	1063	1064	1066	1067	1068
DATE:	9/8	9/9	9/10	9/11	9/12	9/13	9/14
Ethane	141.8	31.0	9.6	15.4	23.6	21.2	8.6
Ethylene	******	******	******	******	******	******	******
Propane	******	******	19.5	50.7	24.6	26.4	11.7
Acetylene	7.8	2.8	2.0	2.2	1.0	1.0	2.8
Isobutane	50.0	9.2	2.8	4.4	8.4	6.0	4.8
n-Butane	108.4	20.4	8.8	10.4	13.6	13.2	10.8
Propylene	11.4	3.0	0.0	3.3	0.0	1.2	3.6
Isopentane	62.5	16.5	6.5	10.0	7.5	8.0	10.5
n-Pentane + Cyclopentane	51.0	53.0	8.5	3.5	2.5	7.0	4.0
Trans-2-pentene + Isoprene	2.5	******	0.5	1.0	0.0	0.3	0.3
2,2-Dimethylbutane	0.0	0.0	0.0	0.2	0.0	0.0	0.0
2-Methylpentane	17.9	******	******	******	0.0	******	******
3-Methylpentane	26.6	******	******	******	0.0	******	6.6
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	23.2	2.3	0.5	0.3	0.0	0.8	0.5
2,4-Dimethylpentane	0.5	0.0	0.0	0.7	0.0	0.0	7.7
2-Methylhexane	5.4	0.3	0.0	0.0	0.0	0.0	******
3-Methylhexane	3.5	0.2	0.0	0.7	0.0	0.0	0.0
2,2,4-Trimethylpentane	******	0.8	0.0	0.0	0.0	0.0	0.0
n-Heptane	0.7	0.0	******	******	1.4	0.0	******
Methylcyclohexane	2.0	0.0	0.0	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane	3.2	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	4.8	1.9	0.0	0.0	0.0	0.0	0.9
3-Methylheptane	4.4	0.3	0.0	0.0	0.0	0.0	0.0
n-Octane	0.5	0.0	0.0	0.0	0.0	0.0	0.0
n-Nonane	0.9	0.0	0.1	0.0	0.0	0.0	0.0
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	15.2	3.8	2.8	14.0	8.5	7.7	5.4
Toluene	10.6	1.2	0.8	2.1	2.2	1.5	3.2
Ethylbenzene	2.3	10.4	1.9	0.8	2.4	0.1	1.5
p-Xylene + A-Pinene	0.9	0.2	0.1	0.1	0.1	0.1	1.2
m-Xylene	2.2	0.6	0.1	0.1	0.1	0.1	1.6
o-Xylene	1.5	0.3	0.1	0.1	0.1	0.1	1.3
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	1.3	0.5	0.0	0.0	1.4	0.0	4.6
m-Ethyltoluene	0.5	0.2	0.0	0.0	0.0	0.0	5.7
1,3,5-Trimethylbenzene	0.5	0.0	0.0	0.0	0.0	0.0	0.7
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	30.9	1.4	0.0	0.0	8.5	0.0	30.6
1,2,3-Trimethylbenzene	0.3	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	13.9	3.0	0.5	4.3	0.0	1.5	3.9
Sum of the Alkanes	507.3	135.9	56.3	96.3	81.6	82.6	66.1
Sum of the Aromatics	66.7	18.6	5.8	17.2	23.3	9.6	55.8
Sum of all compounds, NMHC	595.7	160.3	64.6	120.0	105.9	94.7	128.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1069	1070	1072	1074	1075	1076	1077
DATE:	9/15	9/16	9/17	9/18	9/19	9/20	9/21
Ethane	19.4	33.2	15.8	10.4	19.6	118.2	47.8
Ethylene	******	******	******	******	******	******	******
Propane	23.4	67.5	22.8	13.8	34.2	******	46.5
Acetylene	0.5	3.6	1.0	1.2	1.6	2.8	1.4
Isobutane	6.8	9.6	6.4	7.4	9.2	35.6	21.2
n-Butane	12.8	23.2	8.4	9.0	22.0	100.4	24.0
Propylene	0.0	1.5	3.0	1.0	4.2	3.0	13.5
Isopentane	0.0	15.5	7.0	5.0	18.5	65.5	24.0
n-Pentane + Cyclopentane	0.0	1.0	2.5	1.0	14.0	46.0	12.5
Trans-2-pentene + Isoprene	0.0	0.0	0.0	0.0	0.7	3.1	0.4
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	******	1.5	0.0	0.0	0.0	9.2	2.8
3-Methylpentane	******	3.1	0.0	0.0	2.7	23.2	7.4
1-Hexene	10.8	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.7	2.0	0.0	0.0	1.0	9.6	1.9
2,4-Dimethylpentane	0.0	0.0	0.0	0.0	0.0	1.4	0.0
2-Methylhexane	0.3	0.0	0.0	0.0	0.9	7.3	1.0
3-Methylhexane	0.0	1.9	0.0	0.0	0.0	0.7	8.2
2,2,4-Trimethylpentane	******	0.0	******	0.0	0.0	******	0.7
n-Heptane	0.0	0.4	0.7	0.0	0.0	******	0.8
Methylcyclohexane	0.0	0.0	0.0	0.0	******	******	******
2,3,4-Trimethylpentane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylheptane	0.0	0.8	0.0	0.0	1.3	1.6	1.2
3-Methylheptane	0.0	0.0	0.0	0.0	0.0	1.1	0.8
n-Octane	0.0	0.0	0.0	0.0	0.0	1.4	0.8
n-Nonane	0.0	0.0	0.0	0.0	0.2	0.3	0.2
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	4.6	3.1	8.5	18.6	5.0	12.0	1.7
Toluene	1.8	2.3	9.1	0.7	7.0	7.0	1.5
Ethylbenzene	0.1	0.1	3.6	0.0	0.6	1.0	0.6
p-Xylene + A-Pinene	0.1	0.1	1.4	0.0	1.0	0.9	0.1
m-Xylene	0.1	0.1	1.0	0.0	1.5	1.9	0.1
o-Xylene	0.1	0.1	0.9	0.0	1.2	1.3	0.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	0.0	2.1	0.0	1.4	0.7	1.0
m-Ethyltoluene	0.0	0.0	0.3	0.0	0.5	0.2	0.0
1,3,5-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.4	0.0	0.0
1,2,4-Trimethylbenzene	0.0	0.0	30.1	0.0	0.0	0.0	3.2
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	10.8	1.5	3.0	1.0	4.9	6.1	13.9
Sum of the Alkanes	63.4	159.7	63.6	46.6	123.6	421.5	201.8
Sum of the Aromatics	6.8	5.8	57.0	19.3	18.6	25.0	8.3
Sum of all compounds, NMHC	81.5	170.6	124.6	68.1	148.7	455.4	225.4

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1078	1079	1080	1081	1082	1083	1084
DATE:	9/22	9/23	9/24	9/25	9/26	9/27	9/28
Ethane	47.4	31.0	11.6	8.0	49.8	19.2	10.0
Ethylene	******	******	******	******	******	******	******
Propane	81.3	30.0	16.5	9.0	96.0	48.6	44.1
Acetylene	0.0	1.6	0.0	1.2	1.6	1.4	1.0
Isobutane	12.8	8.0	7.6	1.6	14.0	5.2	2.4
n-Butane	23.2	15.2	20.4	5.2	41.6	12.4	6.0
Propylene	0.0	2.1	2.1	2.4	2.1	2.4	2.4
Isopentane	1.0	10.0	15.0	1.5	20.5	6.5	9.0
n-Pentane + Cyclopentane	0.0	7.5	8.5	0.0	22.5	0.5	5.0
Trans-2-pentene + Isoprene	0.6	0.0	0.5	0.0	0.0	0.0	0.0
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	******	0.0	******	0.0	2.5	0.0	0.0
3-Methylpentane	******	0.7	3.5	0.0	4.9	0.0	0.0
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	1.7	0.8	0.3	0.0	4.2	0.0	0.0
2,4-Dimethylpentane	0.0	0.0	0.0	0.0	2.1	0.0	0.0
2-Methylhexane	0.0	0.3	1.6	0.0	0.0	0.0	0.0
3-Methylhexane	1.4	0.2	2.8	0.0	1.4	0.0	0.0
2,2,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Heptane	0.0	0.0	0.5	0.0	1.7	0.0	0.0
Methylcyclohexane	0.0	******	******	0.0	1.2	0.0	0.0
2,3,4-Trimethylpentane	0.8	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	0.6	0.9	0.9	0.0	0.8	0.0	0.0
3-Methylheptane	0.0	0.0	0.0	0.0	0.2	0.0	0.0
n-Octane	0.8	0.0	0.0	0.0	0.2	0.0	0.0
n-Nonane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	8.7	******	15.0	14.7	8.9	12.8	2.5
Toluene	0.5	******	3.8	10.0	2.9	2.8	0.6
Ethylbenzene	0.3	******	2.5	1.8	0.0	1.6	0.0
p-Xylene + A-Pinene	0.7	******	0.1	0.1	0.0	0.1	0.0
m-Xylene	1.0	******	0.1	0.1	0.0	0.1	0.0
o-Xylene	0.8	******	0.1	0.1	0.0	0.1	0.0
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.5	******	6.5	5.4	0.0	2.1	0.0
m-Ethyltoluene	0.6	******	2.5	1.9	0.0	0.9	0.0
1,3,5-Trimethylbenzene	0.0	******	2.1	0.3	0.0	0.7	0.0
t-Butylbenzene	0.0	******	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	2.2	0.0	0.0	1.0	0.0
1,2,4-Trimethylbenzene	18.9	******	13.3	52.0	0.0	21.6	0.0
1,2,3-Trimethylbenzene	0.0	******	9.0	1.4	0.0	3.6	0.0
n-Butylbenzene	0.0	******	9.7	4.4	0.0	4.9	0.0
Sum of the Alkenes	0.6	2.1	2.6	2.4	2.1	2.4	2.4
Sum of the Alkanes	171.0	104.6	89.2	25.3	263.6	92.4	76.5
Sum of the Aromatics	32.0	0.0	66.9	92.2	11.8	52.3	3.1
Sum of all compounds, NMHC	203.6	108.3	158.7	121.1	279.1	148.5	83.0

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0600-0900 CDT

SAMPLE NUMBER:	1085	1086
DATE:	9/29	9/30
Ethane	11.0	14.8
Ethylene	******	******
Propane	34.2	20.1
Acetylene	3.0	1.0
Isobutane	3.6	6.0
n-Butane	7.2	10.4
Propylene	0.0	6.6
Isopentane	7.0	6.5
n-Pentane + Cyclopentane	1.5	6.0
Trans-2-pentene + Isoprene	0.0	******
2,2-Dimethylbutane	0.0	******
2-Methylpentane	0.0	******
3-Methylpentane	0.0	******
1-Hexene	0.0	******
n-Hexane	0.0	******
2,4-Dimethylpentane	0.0	******
2-Methylhexane	0.0	******
3-Methylhexane	0.0	******
2,2,4-Trimethylpentane	0.0	******
n-Heptane	0.0	******
Methylcyclohexane	0.0	******
2,3,4-Trimethylpentane	0.0	******
2-Methylheptane	0.0	******
3-Methylheptane	0.0	******
n-Octane	0.0	******
n-Nonane	0.0	******
n-Decane	0.0	******
n-Undecane	0.0	******
n-Dodecane	0.0	******
Benzene	6.6	5.4
Toluene	1.4	1.8
Ethylbenzene	0.0	0.0
p-Xylene + A-Pinene	0.0	0.0
m-Xylene	0.0	0.0
o-Xylene	0.0	0.0
B-Pinene	0.0	0.0
n-Propylbenzene	0.0	0.0
m-Ethyltoluene	0.0	0.0
1,3,5-Trimethylbenzene	0.0	0.0
t-Butylbenzene	0.0	0.0
o-Ethyltoluene	0.0	0.0
1,2,4-Trimethylbenzene	0.0	0.0
1,2,3-Trimethylbenzene	0.0	0.0
n-Butylbenzene	0.0	0.0
Sum of the Alkenes	0.0	6.6
Sum of the Alkanes	64.5	63.8
Sum of the Aromatics	8.0	7.2
Sum of all compounds, NMHC	75.5	78.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2000	2001	2002	2003	2004	2005	2006
DATE:	7/14	7/15	7/16	7/17	7/18	7/19	7/20
Ethane	31.4	20.0	35.0	16.6	32.4	28.6	12.0
Ethylene	15.4	13.0	81.8	31.8	15.2	12.6	118.0
Propane	22.2	17.7	35.4	15.0	27.3	23.4	9.9
Acetylene	9.8	9.8	8.8	4.8	27.4	8.4	7.0
Isobutane	9.2	7.6	11.6	5.2	10.8	10.0	4.4
n-Butane	22.4	17.2	27.6	11.6	24.8	22.8	12.4
Propylene	7.8	5.7	8.1	4.8	6.6	7.5	6.9
Isopentane	25.5	19.0	******	78.5	23.0	21.5	17.5
n-Pentane + Cyclopentane	16.0	27.0	******	******	******	55.5	30.5
Trans-2-pentene + Isoprene	0.6	1.3	******	1.0	******	3.3	2.1
2,2-Dimethylbutane	0.0	0.0	******	0.0	******	0.0	0.0
2-Methylpentane	******	******	******	******	******	1.9	5.5
3-Methylpentane	2.7	1.5	******	******	******	6.6	14.7
1-Hexene	0.2	0.0	******	0.0	******	0.1	0.0
n-Hexane	4.0	3.2	******	1.8	******	4.9	1.5
2,4-Dimethylpentane	0.0	0.0	******	0.0	******	1.4	0.0
2-Methylhexane	1.2	6.2	******	4.6	******	******	0.9
3-Methylhexane	0.9	2.8	******	1.4	******	******	7.7
2,2,4-Trimethylpentane	1.1	1.9	******	0.0	******	******	0.0
n-Heptane	0.8	0.5	******	0.0	******	******	0.0
Methylcyclohexane	1.2	0.0	******	0.0	******	******	0.0
2,3,4-Trimethylpentane	0.0	0.0	******	0.0	******	0.0	0.0
2-Methylheptane	4.3	6.3	******	0.0	******	7.3	6.5
3-Methylheptane	1.5	0.2	******	0.0	******	0.3	0.6
n-Octane	1.4	0.6	******	0.0	******	0.9	2.3
n-Nonane	0.4	0.1	******	0.0	******	0.3	0.2
n-Decane	0.1	0.1	******	0.0	******	0.2	0.0
n-Undecane	0.0	0.0	******	0.0	******	0.0	0.0
n-Dodecane	0.0	0.0	******	0.0	******	0.0	0.0
Benzene	15.5	30.5	******	10.2	16.9	21.0	19.6
Toluene	7.0	6.7	******	6.3	11.0	7.0	6.7
Ethylbenzene	4.9	3.7	******	2.7	0.1	2.9	0.2
p-Xylene + A-Pinene	0.7	1.1	******	0.5	0.1	0.8	0.9
m-Xylene	4.5	2.1	******	2.0	0.1	2.3	2.1
o-Xylene	3.3	1.7	******	1.8	0.0	1.8	1.2
B-Pinene	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Propylbenzene	5.7	1.2	******	6.5	0.0	0.7	0.0
m-Ethyltoluene	0.9	0.6	******	2.4	0.0	0.3	0.0
1,3,5-Trimethylbenzene	1.4	0.0	******	0.0	0.0	1.4	1.7
t-Butylbenzene	0.0	0.0	******	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	******	0.0	0.0	1.1	0.0
1,2,4-Trimethylbenzene	9.6	32.9	******	5.8	0.1	22.6	1.5
1,2,3-Trimethylbenzene	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	******	0.0	0.0	0.0	0.0
Sum of the Alkenes	24.0	26.0	89.9	37.6	21.8	23.5	127.0
Sum of the Alkanes	146.3	131.9	109.6	134.7	118.3	185.6	126.6
Sum of the Aromatics	53.5	80.5	0.0	38.2	28.3	61.9	33.9
Sum of all compounds, NMHC	233.6	242.2	208.3	215.3	195.8	279.4	294.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2007	2008	2009	2010	2011	2012	2013
DATE:	7/21	7/22	7/23	7/24	7/25	7/26	7/27
Ethane	20.0	24.8	40.8	42.8	27.2	12.6	14.6
Ethylene	10.4	17.6	17.6	7.0	10.0	13.6	22.0
Propane	17.1	29.1	29.1	34.5	27.9	12.6	13.2
Acetylene	5.6	13.2	13.0	2.5	5.2	12.4	15.2
Isobutane	6.8	11.6	13.2	9.2	12.0	6.0	6.8
n-Butane	15.6	26.0	28.4	18.4	32.4	18.8	15.2
Propylene	5.4	10.5	8.4	5.4	3.6	5.7	8.7
Isopentane	15.0	24.5	32.5	10.5	32.5	21.0	21.5
n-Pentane + Cyclopentane	85.5	16.5	26.0	7.5	28.5	17.0	15.0
Trans-2-pentene + Isoprene	1.9	1.2	3.1	5.9	2.5	2.7	1.6
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	1.0	0.0	0.0
2-Methylpentane	******	2.0	******	0.0	3.5	8.0	7.4
3-Methylpentane	******	0.0	26.9	0.0	13.7	23.7	26.0
1-Hexene	0.0	0.0	3.5	0.0	1.0	0.1	0.0
n-Hexane	0.7	4.6	4.6	0.0	3.9	5.0	5.1
2,4-Dimethylpentane	0.0	0.0	******	0.0	******	0.1	0.0
2-Methylhexane	******	1.0	2.5	0.0	2.0	2.5	3.1
3-Methylhexane	******	0.7	******	0.0	******	3.9	6.7
2,2,4-Trimethylpentane	******	0.0	******	0.0	******	0.7	0.2
n-Heptane	******	******	3.0	0.0	******	0.2	0.1
Methylcyclohexane	******	0.0	0.0	0.0	******	1.9	0.2
2,3,4-Trimethylpentane	******	0.0	0.0	0.0	******	0.2	0.0
2-Methylheptane	0.0	9.6	11.0	0.0	6.1	10.1	10.6
3-Methylheptane	0.0	0.3	1.1	0.0	1.2	0.5	0.8
n-Octane	0.6	0.3	1.0	0.0	2.6	2.2	2.6
n-Nonane	0.0	0.1	0.3	0.0	1.4	0.7	0.4
n-Decane	0.0	0.0	0.0	0.0	0.0	0.1	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	46.8	42.6	37.8	25.8	44.4	37.7	36.0
Toluene	6.5	9.5	14.7	3.5	5.6	10.5	8.4
Ethylbenzene	0.2	2.4	4.5	0.1	0.3	1.6	2.9
p-Xylene + A-Pinene	0.3	0.1	1.4	0.4	0.4	1.4	0.8
m-Xylene	0.3	2.6	4.5	0.2	0.3	3.2	3.6
o-Xylene	0.1	0.2	2.8	0.3	0.4	2.2	2.6
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.1	0.1	0.1	0.8	0.2	1.1	0.9
m-Ethyltoluene	0.1	0.0	0.0	0.0	0.1	0.5	0.5
1,3,5-Trimethylbenzene	0.0	0.1	0.3	0.0	0.1	0.4	0.9
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	0.1	2.7	1.0	0.1	1.0	35.2
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	17.7	29.3	32.6	18.3	17.1	22.1	32.3
Sum of the Alkanes	161.3	151.1	220.4	122.9	195.9	147.8	149.5
Sum of the Aromatics	54.5	57.7	68.8	32.1	51.9	59.6	91.8
Sum of all compounds, NMHC	239.1	251.3	334.8	175.8	270.1	241.9	288.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2014	2015	2016	2017	2018	2019	2020
DATE:	7/28	7/29	7/30	7/31	8/ 1	8/ 2	8/ 3
Ethane	17.0	42.0	41.4	46.2	61.2	52.4	45.6
Ethylene	26.2	17.0	8.2	14.6	32.6	18.6	15.4
Propane	15.6	32.7	34.5	33.9	61.2	61.2	42.6
Acetylene	9.4	13.4	2.6	5.6	26.8	13.0	10.4
Isobutane	4.8	15.6	7.6	17.6	23.6	27.6	14.6
n-Butane	13.2	43.2	18.0	40.4	54.8	66.8	41.2
Propylene	9.3	9.3	3.9	12.6	16.5	9.9	9.3
Isopentane	15.0	43.0	11.0	35.0	56.0	48.0	37.5
n-Pentane + Cyclopentane	11.1	30.5	9.0	25.0	42.5	41.0	31.5
Trans-2-pentene + Isoprene	2.1	4.1	1.4	1.9	4.0	4.7	4.0
2,2-Dimethylbutane	******	0.0	******	******	0.2	0.0	0.0
2-Methylpentane	******	9.7	******	******	15.2	14.2	8.9
3-Methylpentane	******	23.1	******	******	23.0	62.3	38.8
1-Hexene	******	1.0	******	******	0.0	0.0	0.0
n-Hexane	0.8	7.2	3.3	******	13.1	18.3	10.3
2,4-Dimethylpentane	******	1.0	******	******	1.6	******	0.0
2-Methylhexane	******	6.0	0.1	******	9.3	9.3	3.2
3-Methylhexane	******	11.7	0.5	******	4.9	20.2	0.0
2,2,4-Trimethylpentane	******	0.0	1.5	******	3.8	1.4	0.0
n-Heptane	0.1	3.4	0.2	0.4	2.7	2.0	1.4
Methylcyclohexane	******	2.1	0.1	0.7	1.0	0.0	5.6
2,3,4-Trimethylpentane	******	0.0	0.0	0.0	******	0.0	0.0
2-Methylheptane	6.4	14.9	1.2	14.7	13.4	17.9	8.1
3-Methylheptane	0.0	2.1	1.2	0.8	3.3	1.8	0.6
n-Octane	0.0	3.8	0.0	1.4	3.4	2.5	1.5
n-Nonane	0.1	0.6	0.0	0.5	0.5	0.4	0.2
n-Decane	0.0	0.0	0.0	0.0	0.1	0.1	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	25.2	18.0	15.8	10.2	12.8	31.8	9.5
Toluene	6.3	16.1	3.0	13.3	18.2	16.8	0.3
Ethylbenzene	0.8	1.5	0.0	0.4	5.2	4.8	0.1
p-Xylene + A-Pinene	1.1	4.8	1.0	1.7	2.0	1.6	0.4
m-Xylene	1.4	3.2	4.6	4.7	6.7	4.0	0.4
o-Xylene	1.4	6.4	1.0	2.0	4.9	3.8	0.2
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	2.7	6.3	5.2	1.1	3.7	1.0	0.7
m-Ethyltoluene	0.0	0.0	0.0	0.2	1.6	1.0	0.1
1,3,5-Trimethylbenzene	1.0	1.0	1.0	1.0	1.7	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.1
o-Ethyltoluene	0.0	0.0	0.0	0.0	1.2	1.0	0.1
1,2,4-Trimethylbenzene	1.0	1.0	1.0	3.6	2.8	0.0	0.0
1,2,3-Trimethylbenzene	1.0	1.0	1.0	0.0	2.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	37.6	31.4	13.5	29.1	53.1	33.2	28.7
Sum of the Alkanes	84.1	292.6	129.6	216.6	394.8	447.4	291.6
Sum of the Aromatics	41.9	59.3	33.6	38.2	62.8	65.8	11.9
Sum of all compounds, NMHC	173.0	396.7	179.3	289.5	537.5	559.4	342.6

****** = INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2021	2022	2023	2024	2025	2026	2027
DATE:	8/ 4	8/ 5	8/ 6	8/ 7	8/ 8	8/ 9	8/10
Ethane	19.2	22.2	17.4	19.8	19.6	22.6	24.2
Ethylene	22.6	18.4	10.4	11.0	12.0	10.4	12.2
Propane	19.8	20.1	14.7	21.3	21.9	21.3	26.1
Acetylene	20.2	10.0	2.5	3.0	4.0	2.4	4.6
Isobutane	12.8	8.8	6.8	7.2	12.0	9.2	11.2
n-Butane	35.2	16.0	12.0	13.6	26.8	19.2	28.4
Propylene	11.7	10.5	6.9	9.5	6.3	5.7	6.6
Isopentane	40.5	17.5	10.0	10.5	24.0	17.5	26.0
n-Pentane + Cyclopentane	25.5	11.9	4.0	7.0	16.5	6.0	16.0
Trans-2-pentene + Isoprene	2.2	0.2	******	1.7	2.3	3.4	2.7
2,2-Dimethylbutane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylpentane	13.7	4.6	******	******	7.5	2.7	7.5
3-Methylpentane	26.6	******	******	******	13.3	2.9	29.3
1-Hexene	0.0	0.0	******	0.0	0.0	0.0	0.5
n-Hexane	20.7	6.1	******	5.0	9.4	2.3	6.0
2,4-Dimethylpentane	0.0	0.0	******	0.0	0.0	0.1	1.0
2-Methylhexane	9.9	10.8	******	2.0	1.4	2.6	5.9
3-Methylhexane	1.7	0.0	******	0.7	1.5	0.3	9.3
2,2,4-Trimethylpentane	0.0	0.0	******	******	******	0.0	0.0
n-Heptane	1.6	1.1	******	0.2	0.7	0.1	0.7
Methylcyclohexane	0.8	11.8	******	******	0.0	0.6	0.1
2,3,4-Trimethylpentane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylheptane	11.6	3.4	******	22.2	2.5	2.1	3.5
3-Methylheptane	1.0	0.0	******	3.8	0.6	0.8	0.7
n-Octane	3.2	1.1	******	1.0	2.8	0.8	0.9
n-Nonane	0.5	0.1	******	0.0	0.2	0.1	0.2
n-Decane	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	******	0.0	******	0.0	0.0
Benzene	46.8	18.0	39.0	40.8	******	16.2	47.4
Toluene	15.1	7.2	7.1	3.3	******	6.5	7.4
Ethylbenzene	5.0	4.1	4.9	3.2	******	1.1	3.3
p-Xylene + A-Pinene	1.8	0.0	0.2	0.1	******	0.1	0.8
m-Xylene	3.7	1.0	0.6	0.1	******	0.5	1.6
o-Xylene	5.7	4.8	0.3	0.1	******	0.3	1.4
B-Pinene	0.0	0.0	0.0	0.0	******	0.0	0.0
n-Propylbenzene	2.0	0.0	4.6	12.9	******	4.6	12.6
m-Ethyltoluene	2.0	0.0	0.9	1.6	******	0.6	5.0
1,3,5-Trimethylbenzene	1.0	0.0	0.7	2.5	******	0.4	1.9
t-Butylbenzene	0.0	0.0	0.0	0.0	******	0.0	5.8
o-Ethyltoluene	0.0	0.0	0.0	0.6	******	0.3	5.2
1,2,4-Trimethylbenzene	11.5	13.5	115.2	65.7	******	29.7	50.3
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	******	0.0	37.7
n-Butylbenzene	0.0	0.0	1.8	0.0	******	0.0	72.8
Sum of the Alkenes	36.5	29.1	17.3	22.2	20.6	19.5	22.0
Sum of the Alkanes	244.3	135.5	64.9	113.9	160.7	111.2	197.0
Sum of the Aromatics	94.6	48.6	175.3	130.9	0.0	60.3	253.2
Sum of all compounds, NMHC	395.6	223.2	260.0	270.0	185.3	193.4	476.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2028	2029	2030	2031	2032	2033	2034
DATE:	8/11	8/12	8/13	8/14	8/15	8/16	8/17
Ethane	19.8	8.8	28.6	19.8	35.0	24.0	17.8
Ethylene	58.6	12.6	9.6	10.6	23.6	12.6	17.4
Propane	16.5	6.3	25.5	18.6	27.3	24.0	22.8
Acetylene	10.6	5.6	4.2	3.6	20.0	5.4	10.6
Isobutane	7.2	3.2	6.4	5.2	12.4	7.2	13.6
n-Butane	16.0	9.2	17.2	12.0	32.0	20.0	35.6
Propylene	7.2	4.5	6.3	8.1	13.5	6.9	6.3
Isopentane	18.5	11.0	13.0	10.0	34.0	24.0	34.0
n-Pentane + Cyclopentane	11.5	6.5	8.0	6.2	26.0	83.0	17.5
Trans-2-pentene + Isoprene	2.9	0.7	2.2	2.3	2.0	3.5	2.2
2,2-Dimethylbutane	0.0	0.0	0.0	0.1	0.0	0.0	0.0
2-Methylpentane	6.5	******	******	******	9.3	******	10.9
3-Methylpentane	18.5	******	******	******	26.9	******	19.9
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	5.7	6.1	2.7	1.3	7.9	3.9	5.4
2,4-Dimethylpentane	0.5	0.0	******	0.1	0.1	0.2	0.3
2-Methylhexane	16.4	0.2	0.7	0.7	3.7	1.7	3.7
3-Methylhexane	15.6	2.9	******	******	1.9	0.8	1.0
2,2,4-Trimethylpentane	******	******	******	0.0	21.6	11.6	12.0
n-Heptane	1.0	0.0	0.7	7.1	3.5	9.9	1.8
Methylcyclohexane	14.8	0.0	11.2	6.2	0.3	0.1	3.5
2,3,4-Trimethylpentane	0.0	6.4	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	11.2	3.9	1.8	2.5	10.6	3.8	9.7
3-Methylheptane	1.6	0.1	0.0	0.4	1.2	0.1	0.5
n-Octane	1.5	4.8	2.7	0.1	17.6	2.4	2.6
n-Nonane	0.4	0.1	0.2	0.9	0.5	0.3	1.1
n-Decane	0.0	0.0	0.0	0.0	0.1	0.0	0.2
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	48.3	******	12.6	6.2	22.2	15.6	19.2
Toluene	1.0	******	4.0	5.9	11.6	6.4	7.2
Ethylbenzene	0.4	******	0.0	0.9	5.0	8.4	1.0
p-Xylene + A-Pinene	0.4	******	0.0	0.2	0.5	0.4	0.4
m-Xylene	0.7	******	0.0	0.6	2.5	1.7	1.0
o-Xylene	0.4	******	0.0	0.4	2.2	1.1	0.9
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	1.9	******	0.0	1.4	2.8	0.0	1.0
m-Ethyltoluene	0.0	******	0.0	0.2	1.1	0.0	0.3
1,3,5-Trimethylbenzene	1.2	******	0.0	0.0	0.7	0.0	0.2
t-Butylbenzene	0.0	******	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	1.1	******	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	4.8	******	0.0	9.6	40.5	2.5	27.3
1,2,3-Trimethylbenzene	2.7	******	0.0	0.0	0.4	0.0	0.0
n-Butylbenzene	4.4	******	0.0	0.0	1.0	0.0	0.6
Sum of the Alkenes	68.7	17.8	18.1	21.0	39.1	23.0	25.9
Sum of the Alkanes	183.2	69.5	118.7	91.2	271.9	217.0	213.9
Sum of the Aromatics	67.3	0.0	16.6	25.4	90.5	36.1	59.1
Sum of all compounds, NMHC	329.8	92.9	157.6	141.2	421.5	281.5	309.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2035	2036	2037	2038	2039	2040	2041
DATE:	8/18	8/19	8/20	8/21	8/22	8/23	8/24
Ethane	28.8	13.2	34.0	64.2	137.6	23.6	30.6
Ethylene	29.6	22.2	18.2	12.8	56.8	******	41.2
Propane	21.0	12.6	21.9	39.4	99.6	18.3	27.3
Acetylene	24.2	20.4	16.4	9.2	57.2	14.2	16.8
Isobutane	20.4	8.8	17.6	24.4	49.2	11.6	10.0
n-Butane	60.4	20.0	41.2	58.8	131.6	24.0	25.6
Propylene	12.6	9.6	6.9	5.1	32.7	6.3	7.2
Isopentene	58.5	27.5	45.0	43.5	141.0	146.5	36.0
n-Pentane + Cyclopentane	34.0	17.0	23.5	32.0	86.0	******	104.5
Trans-2-pentene + Isoprene	3.2	3.0	2.0	2.7	9.8	******	2.5
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	4.1	******	0.0
2-Methylpentane	4.8	10.5	8.3	12.1	29.1	******	6.6
3-Methylpentane	15.0	31.2	24.5	31.2	29.5	******	13.2
1-Hexene	0.1	0.0	0.0	0.0	0.4	******	0.0
n-Hexane	9.9	7.9	5.7	13.0	30.3	******	5.4
2,4-Dimethylpentane	2.8	0.0	0.9	0.0	8.4	******	0.4
2-Methylhexane	6.5	8.8	3.3	6.6	24.4	******	9.4
3-Methylhexane	2.8	1.3	1.4	1.9	9.8	******	7.3
2,2,4-Trimethylpentane	14.4	11.4	12.0	16.0	18.4	******	1.1
n-Heptane	2.1	1.2	1.8	3.5	10.5	******	4.2
Methylcyclohexane	0.0	0.0	******	0.1	2.1	******	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	0.8	******	******
2-Methylheptane	13.8	25.7	11.0	9.7	10.1	******	13.8
3-Methylheptane	2.4	2.0	1.1	4.8	1.7	******	1.6
n-Octane	0.8	6.4	1.3	2.4	9.6	******	1.3
n-Nonane	0.4	0.9	0.4	1.4	2.7	******	0.1
n-Decane	0.1	0.0	0.0	0.3	0.2	******	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	******	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	******	0.0
Benzene	18.7	******	30.6	17.4	48.9	86.2	21.2
Toluene	12.4	******	11.7	11.9	28.0	92.3	13.2
Ethylbenzene	3.7	******	3.6	2.9	8.0	209.0	11.9
p-Xylene + A-Pinene	1.0	******	1.3	1.1	5.4	1.0	1.4
m-Xylene	3.7	******	4.0	3.9	12.9	7.4	4.8
o-Xylene	3.2	******	3.2	3.0	8.3	6.0	2.4
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.5	******	0.5	3.5	1.1	17.5	0.2
m-Ethyltoluene	0.3	******	0.2	0.6	3.7	1.2	0.2
1,3,5-Trimethylbenzene	0.2	******	0.2	0.3	2.3	2.7	0.4
t-Butylbenzene	0.0	******	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	0.0	0.0	0.8	0.5	0.0
1,2,4-Trimethylbenzene	31.5	******	14.2	36.0	14.2	2.2	2.8
1,2,3-Trimethylbenzene	0.0	******	0.0	0.0	0.0	0.8	0.0
n-Butylbenzene	0.0	******	0.0	0.0	0.0	18.4	0.0
Sum of the Alkenes	45.5	34.8	27.1	20.6	99.7	8.3	50.9
Sum of the Alkanes	298.9	206.4	254.9	365.3	836.7	224.0	298.4
Sum of the Aromatics	75.2	0.0	69.5	80.6	133.6	445.2	58.5
Sum of all compounds, NMHC	443.8	261.6	367.9	475.7	1127.2	689.7	424.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2042	2043	2045	2046	2047	2048	2049
DATE:	8/25	8/26	8/27	8/28	8/29	8/30	8/31
Ethane	21.8	20.0	13.0	9.8	19.2	24.6	20.0
Ethylene	******	52.8	7.6	10.0	******	22.2	7.8
Propane	16.8	18.6	12.6	8.4	15.0	22.8	13.8
Acetylene	11.2	6.0	2.9	1.0	13.6	15.6	1.4
Isobutane	9.6	10.0	6.8	2.8	12.0	8.4	5.2
n-Butane	20.4	17.2	12.4	7.2	17.2	22.8	12.0
Propylene	5.1	0.6	2.0	2.4	8.4	8.4	0.0
Isopentane	90.0	30.0	11.0	2.0	44.0	25.0	14.5
n-Pentane + Cyclopentane	845.5	127.0	6.5	0.0	119.0	15.5	6.0
Trans-2-pentene + Isoprene	0.0	3.2	5.3	******	5.8	2.2	1.8
2,2-Dimethylbutane	0.0	******	******	******	******	0.0	0.0
2-Methylpentane	17.2	******	******	******	******	3.1	******
3-Methylpentane	21.6	******	******	******	******	8.2	******
1-Hexene	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Hexane	9.8	4.0	0.7	******	1.7	3.3	******
2,4-Dimethylpentane	2.8	0.7	0.0	******	0.2	0.0	******
2-Methylhexane	75.9	15.4	0.0	******	******	1.7	0.7
3-Methylhexane	82.6	8.4	0.0	******	******	1.4	0.2
2,2,4-Trimethylpentane	32.0	12.0	7.6	******	******	1.4	******
n-Heptane	68.6	7.3	0.2	******	5.9	******	******
Methylcyclohexane	48.3	4.2	******	******	0.0	0.0	******
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	0.0	0.0	0.0
2-Methylheptane	42.3	9.6	1.6	******	12.5	4.9	2.2
3-Methylheptane	10.3	1.7	0.1	******	1.2	0.2	0.1
n-Octane	3.8	1.3	0.0	******	1.3	0.4	0.1
n-Nonane	0.1	0.1	0.0	******	0.1	0.1	0.1
n-Decane	0.0	0.0	0.0	******	0.1	0.0	0.0
n-Undecane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	******	0.0	0.0	0.0
Benzene	19.5	20.5	22.8	12.0	22.8	12.3	38.4
Toluene	2.3	10.1	3.0	1.4	10.5	7.2	4.7
Ethylbenzene	******	0.0	1.6	0.8	8.8	1.3	0.8
p-Xylene + A-Pinene	******	0.0	0.2	0.2	3.2	0.6	0.2
m-Xylene	******	0.0	0.8	0.7	2.1	2.4	0.5
o-Xylene	******	0.0	0.8	0.6	1.7	1.7	0.4
B-Pinene	******	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	******	0.0	7.6	1.9	0.3	0.0	0.0
m-Ethyltoluene	******	7.9	1.3	0.1	0.1	0.0	0.0
1,3,5-Trimethylbenzene	******	0.0	0.3	0.0	0.0	0.0	0.5
t-Butylbenzene	******	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	******	0.0	0.2	0.0	0.0	0.0	0.3
1,2,4-Trimethylbenzene	******	0.0	34.4	8.7	5.4	4.8	2.0
1,2,3-Trimethylbenzene	******	0.0	0.0	0.0	0.0	0.0	0.9
n-Butylbenzene	******	0.0	0.0	0.0	0.0	0.0	1.0
Sum of the Alkenes	5.1	56.6	14.9	12.4	14.2	32.8	9.6
Sum of the Alkanes	1419.4	287.5	72.5	30.2	249.4	143.8	74.9
Sum of the Aromatics	21.8	38.5	73.0	26.4	54.9	30.3	49.7
Sum of all compounds, NMHC	1457.5	388.6	163.3	70.0	332.1	222.5	135.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2051	2052	2054	2056	2057	2058	2059
DATE:	97_1	97_2	97_3	97_4	97_5	97_6	97_7
Ethane	26.8	39.6	24.4	******	12.2	12.2	21.0
Ethylene	14.8	******	14.0	******	22.0	15.8	28.4
Propane	19.2	25.8	18.3	******	8.1	14.1	20.4
Acetylene	13.8	25.0	11.0	******	3.4	12.6	16.4
Isobutane	8.4	16.0	11.2	******	6.0	5.6	10.0
n-Butane	17.6	40.4	26.4	******	14.8	14.4	23.2
Propylene	4.5	12.6	4.8	******	0.0	6.0	9.9
Isopentane	24.0	49.0	42.0	******	18.0	18.0	26.0
n-Pentane + Cyclopentane	17.0	31.8	16.0	******	12.5	10.5	19.5
Trans-2-pentene + Isoprene	2.6	4.8	6.3	******	0.4	0.8	1.2
2,2-Dimethylbutane	0.0	0.0	0.0	******	0.0	0.0	0.0
2-Methylpentane	4.9	8.9	5.5	******	1.8	3.5	4.7
3-Methylpentane	18.9	14.4	14.5	******	12.8	20.5	24.2
1-Hexene	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Hexane	4.7	7.0	5.7	******	1.7	4.3	4.5
2,4-Dimethylpentane	0.0	1.7	0.0	******	0.0	0.0	0.0
2-Methylhexane	2.9	6.7	2.9	******	0.9	2.6	3.5
3-Methylhexane	0.5	3.2	0.0	******	0.9	2.8	0.9
2,2,4-Trimethylpentane	******	4.3	14.7	******	1.7	2.6	8.0
n-Heptane	1.2	0.1	0.0	******	0.0	3.2	0.8
Methylcyclohexane	******	0.2	0.0	******	0.0	0.3	******
2,3,4-Trimethylpentane	******	0.0	0.0	******	0.0	0.0	0.0
2-Methylheptane	8.5	14.6	11.2	******	1.9	8.1	10.1
3-Methylheptane	0.2	1.8	0.6	******	0.2	0.8	0.9
n-Octane	0.4	1.3	3.0	******	0.0	1.0	5.1
n-Nonane	0.1	0.1	0.0	******	0.1	0.1	0.2
n-Decane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	******	0.0	0.0	0.0
Benzene	13.2	29.7	20.4	******	14.4	17.8	17.4
Toluene	5.6	11.9	12.6	******	2.8	8.4	8.8
Ethylbenzene	0.8	3.2	2.9	******	1.0	1.4	2.3
p-Xylene + A-Pinene	0.5	1.6	1.1	******	0.5	1.0	0.9
m-Xylene	1.9	4.8	4.2	******	1.1	2.8	3.0
o-Xylene	1.1	0.5	3.2	******	0.7	1.7	2.2
B-Pinene	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Propylbenzene	0.0	1.8	1.5	******	0.0	0.7	0.7
m-Ethyltoluene	0.0	2.7	0.0	******	0.0	0.3	0.5
1,3,5-Trimethylbenzene	0.0	1.8	1.0	******	0.0	0.0	0.5
t-Butylbenzene	0.0	0.0	0.0	******	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	******	0.0	0.0	0.0
1,2,4-Trimethylbenzene	3.1	10.8	1.0	******	0.0	0.0	12.6
1,2,3-Trimethylbenzene	0.0	4.5	2.5	******	0.0	0.0	0.0
n-Butylbenzene	0.0	10.0	1.8	******	0.0	0.0	0.0
Sum of the Alkenes	21.9	17.4	25.1	0.0	22.4	22.6	39.5
Sum of the Alkanes	155.3	266.9	196.4	0.0	93.6	124.6	183.0
Sum of the Aromatics	26.2	83.3	52.2	0.0	20.5	34.1	48.9
Sum of all compounds, NMHC	217.2	392.6	284.7	0.0	139.9	193.9	287.8

****** = INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2060	2063	2064	2065	2067	2068	2069
DATE:	9/8	9/9	9/10	9/11	9/12	9/13	9/14
Ethane	57.6	29.4	8.6	12.6	12.8	19.2	9.4
Ethylene	30.2	17.0	8.4	8.8	9.6	12.0	9.4
Propane	45.3	30.9	7.5	10.2	12.0	17.4	11.1
Acetylene	28.0	10.2	6.8	2.5	7.2	7.8	7.4
Isobutane	24.0	13.6	4.4	2.8	6.8	6.8	4.8
n-Butane	46.8	33.6	12.0	7.2	13.6	18.8	11.6
Propylene	14.4	3.6	0.9	3.0	3.6	5.1	0.9
Isopentane	54.5	33.5	23.0	6.0	14.0	17.0	12.5
n-Pentane + Cyclopentane	38.8	55.5	5.0	5.0	7.5	11.5	0.5
Trans-2-pentene + Isoprene	4.9	2.2	0.3	******	0.7	2.3	0.4
2,2-Dimethylbutane	0.0	0.0	0.0	******	0.0	0.0	0.0
2-Methylpentane	18.0	6.2	1.8	******	4.3	7.1	2.1
3-Methylpentane	34.4	9.2	8.1	******	19.3	30.0	20.7
1-Hexene	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Hexane	15.9	0.0	1.2	******	4.7	9.8	1.1
2,4-Dimethylpentane	1.5	0.0	0.0	******	0.0	******	0.0
2-Methylhexane	10.4	3.6	0.7	******	2.4	8.1	0.1
3-Methylhexane	2.9	0.7	0.5	******	1.4	5.9	0.0
2,2,4-Trimethylpentane	9.2	1.8	0.0	******	2.4	1.4	2.4
n-Heptane	3.2	0.6	0.0	******	1.2	3.3	0.1
Methylcyclohexane	0.2	******	0.0	******	0.0	0.0	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	******	0.0	0.0
2-Methylheptane	21.2	7.6	2.9	******	4.2	19.2	2.8
3-Methylheptane	3.6	0.6	0.1	******	0.0	0.0	0.0
n-Octane	5.6	1.3	0.1	******	0.8	3.8	0.1
n-Nonane	0.6	0.2	0.1	******	0.1	0.2	0.1
n-Decane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	******	0.0	0.0	0.0
Benzene	20.1	13.2	6.3	16.2	25.2	35.2	14.7
Toluene	14.7	5.0	2.2	2.1	5.2	7.0	3.4
Ethylbenzene	2.0	7.8	0.6	0.0	0.5	0.8	0.3
p-Xylene + A-Pinene	1.3	0.4	0.4	0.0	0.2	0.2	0.1
m-Xylene	3.5	1.3	0.7	0.0	0.6	0.5	0.5
o-Xylene	1.4	0.6	0.4	0.0	0.3	0.2	0.2
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.5	0.0	0.0	0.0	1.1	4.6	0.3
m-Ethyltoluene	0.6	0.0	0.0	0.0	0.5	0.0	0.0
1,3,5-Trimethylbenzene	0.9	0.0	0.0	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	3.6	0.0	0.0	0.0	1.2	0.0	0.0
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	49.5	22.8	9.6	11.8	13.9	19.4	10.7
Sum of the Alkanes	392.9	228.3	76.0	43.8	107.5	179.5	79.4
Sum of the Aromatics	48.6	28.3	10.6	18.3	34.8	48.5	19.5
Sum of all compounds, NMHC	519.0	289.6	103.0	76.4	163.4	255.2	117.0

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2070	2071	2073	2075	2076	2077	2078
DATE:	9/15	9/16	9/17	9/18	9/19	9/20	9/21
Ethane	25.6	40.8	16.8	12.4	16.8	48.0	22.2
Ethylene	22.0	34.0	12.6	8.6	14.8	52.8	12.6
Propane	27.3	47.4	13.5	11.4	20.4	42.6	16.5
Acetylene	18.6	29.2	3.5	3.0	6.6	58.6	8.2
Isobutane	11.6	22.0	6.0	5.2	7.6	37.6	8.0
n-Butane	32.0	59.2	10.0	8.8	15.6	140.8	14.8
Propylene	6.6	14.4	2.7	4.2	4.2	22.5	6.0
Isopentane	28.0	59.0	3.0	7.0	15.5	123.0	13.0
n-Pentane + Cyclopentane	27.0	40.5	1.0	2.0	14.5	65.0	8.5
Trans-2-pentene + Isoprene	0.5	2.4	0.2	0.0	0.2	7.1	0.0
2,2-Dimethylbutane	0.0	0.1	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	3.4	22.8	******	0.0	2.3	25.7	******
3-Methylpentane	16.7	12.4	******	0.0	8.3	15.2	******
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	3.8	12.6	0.4	0.2	1.4	17.3	0.9
2,4-Dimethylpentane	0.0	1.5	0.0	0.0	0.0	4.9	0.0
2-Methylhexane	2.5	10.4	8.2	******	0.2	16.9	4.4
3-Methylhexane	1.0	4.1	4.5	0.0	0.9	7.7	******
2,2,4-Trimethylpentane	2.9	4.8	0.2	0.0	0.8	14.4	0.0
n-Heptane	0.7	14.0	******	0.0	0.0	9.8	0.0
Methylcyclohexane	0.7	4.3	0.0	0.0	0.0	4.9	0.0
2,3,4-Trimethylpentane	9.6	0.9	0.0	0.0	0.0	1.6	0.0
2-Methylheptane	9.9	33.1	0.8	0.0	3.1	41.4	1.5
3-Methylheptane	0.5	5.3	0.1	0.0	0.4	7.2	0.0
n-Octane	0.1	4.8	0.0	0.0	2.4	6.4	0.0
n-Nonane	0.1	0.4	0.0	0.0	0.2	2.7	0.1
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	18.0	36.6	16.1	3.6	14.8	37.4	30.9
Toluene	7.0	29.4	2.1	1.8	2.4	34.3	6.1
Ethylbenzene	0.8	4.0	0.9	0.0	0.2	6.4	3.5
p-Xylene + A-Pinene	0.7	3.2	0.0	0.0	0.1	4.4	0.8
m-Xylene	1.9	8.0	0.0	0.0	0.2	12.8	3.2
o-Xylene	1.0	4.2	0.0	0.0	0.2	6.4	1.9
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.2	0.0	2.1	0.5	0.0	0.2	1.5
m-Ethyltoluene	0.2	0.0	0.0	0.0	0.0	2.3	0.8
1,3,5-Trimethylbenzene	0.2	0.0	0.0	0.0	0.0	1.7	0.7
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	1.0	0.4
1,2,4-Trimethylbenzene	2.4	0.0	0.0	0.0	0.0	3.6	0.0
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.4	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	29.1	50.8	15.5	12.8	19.2	82.4	18.6
Sum of the Alkanes	203.4	400.4	64.5	47.0	110.4	633.1	89.9
Sum of the Aromatics	32.4	85.4	21.2	5.9	17.9	110.9	49.8
Sum of all compounds, NMHC	283.5	565.8	104.7	68.7	154.1	885.0	166.5

****** = INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

SAMPLE NUMBER:	2079	2080	2081	2082	2083	2084	2085
DATE:	9/22	9/23	9/24	9/25	9/26	9/27	9/28
Ethane	20.8	29.2	8.4	18.8	40.2	9.4	9.2
Ethylene	23.8	18.8	13.6	28.0	67.0	26.0	33.2
Propane	17.7	24.0	5.4	17.4	35.1	8.7	7.5
Acetylene	10.8	7.2	7.6	5.0	33.0	5.2	7.0
Isobutane	8.0	10.8	6.0	5.2	17.2	4.0	2.8
n-Butane	18.8	20.0	15.2	13.2	45.6	9.4	8.4
Propylene	7.2	6.3	4.8	0.0	13.8	6.6	3.6
Isopentane	19.0	19.5	12.0	10.0	56.5	11.0	11.5
n-Pentane + Cyclopentane	13.0	10.0	7.5	7.5	34.5	3.5	7.0
Trans-2-pentene + Isoprene	0.5	0.0	0.4	0.1	1.4	0.4	3.5
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	2.2	22.2	25.8	******	7.5	******	7.2
3-Methylpentane	7.4	3.5	2.2	6.6	46.3	******	0.6
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	3.1	1.0	0.7	0.6	7.4	0.0	0.2
2,4-Dimethylpentane	0.7	0.0	0.0	******	1.2	0.0	0.0
2-Methylhexane	2.6	0.1	0.1	2.9	10.5	0.1	0.1
3-Methylhexane	10.5	0.1	0.7	0.0	3.9	0.0	0.1
2,2,4-Trimethylpentane	0.7	******	7.3	1.4	1.8	0.0	0.0
n-Heptane	0.0	0.8	0.1	3.8	0.1	0.0	******
Methylcyclohexane	0.2	0.3	0.0	0.0	1.3	0.0	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	6.8	1.5	2.0	0.9	19.4	0.0	1.0
3-Methylheptane	1.0	0.2	0.1	0.0	2.9	0.0	0.0
n-Octane	0.6	0.8	0.1	0.0	7.2	0.0	0.1
n-Nonane	0.2	0.3	0.1	0.1	0.4	0.1	0.1
n-Decane	0.1	0.0	0.0	0.0	0.1	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	27.6	14.4	13.8	9.0	23.4	6.5	9.6
Toluene	8.8	3.5	4.9	2.3	12.8	5.6	4.2
Ethylbenzene	2.4	1.2	3.7	1.1	3.0	0.0	0.3
p-Xylene + A-Pinene	2.1	0.8	1.2	0.3	1.2	0.0	0.1
m-Xylene	3.7	1.1	1.7	0.5	4.5	0.0	0.2
o-Xylene	3.1	1.1	2.1	0.6	2.0	0.0	0.2
B-Pinene	0.0	0.0	0.0	0.5	0.0	0.0	0.0
n-Propylbenzene	0.7	6.3	8.3	0.7	0.6	0.4	0.3
m-Ethyltoluene	0.5	0.2	4.1	0.2	0.5	0.1	0.2
1,3,5-Trimethylbenzene	0.5	0.0	5.5	0.9	0.6	0.2	0.3
t-Butylbenzene	0.0	0.0	3.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	6.5	0.0	0.3	0.0	0.2
1,2,4-Trimethylbenzene	48.3	0.0	18.7	21.6	11.6	2.4	1.8
1,2,3-Trimethylbenzene	0.7	0.0	15.0	2.3	0.5	0.3	1.1
n-Butylbenzene	0.0	0.0	19.7	3.4	0.6	0.0	1.3
Sum of the Alkenes	31.5	25.1	18.8	28.6	82.2	33.0	40.3
Sum of the Alkanes	133.4	144.3	93.7	88.4	339.1	46.2	55.8
Sum of the Aromatics	98.4	28.6	108.2	42.9	61.6	15.5	19.4
Sum of all compounds, NMHC	274.1	205.2	228.3	164.9	515.9	99.9	122.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0600-0900 CDT

	SAMPLE NUMBER:	2086
	DATE:	9/29
Ethane		12.0
Ethylene		******
Propane		10.8
Acetylene		13.4
Isobutane		9.2
n-Butane		19.2
Propylene		5.7
Isopentane		62.0
n-Pentane + Cyclopentane		204.0
Trans-2-pentene + Isoprene		3.8
2,2-Dimethylbutane		0.8
2-Methylpentane		******
3-Methylpentane		******
1-Hexene		0.0
n-Hexane		3.8
2,4-Dimethylpentane		0.1
2-Methylhexane		4.8
3-Methylhexane		2.7
2,2,4-Trimethylpentane		1.5
n-Heptane		2.8
Methylcyclohexane		0.8
2,3,4-Trimethylpentane		0.8
2-Methylheptane		7.1
3-Methylheptane		1.0
n-Octane		0.8
n-Nonane		0.0
n-Decane		0.0
n-Undecane		0.8
n-Dodecane		0.0
Benzene		17.1
Toluene		9.8
Ethylbenzene		46.4
p-Xylene + A-Pinene		1.2
m-Xylene		3.4
o-Xylene		2.9
B-Pinene		0.0
n-Propylbenzene		4.0
m-Ethyltoluene		0.0
1,3,5-Trimethylbenzene		0.0
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		0.0
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		8.7
Sum of the Alkanes		339.9
Sum of the Aromatics		84.8
Sum of all compounds, NMHC		446.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3000	3001	3002	3003	3004	3005	3006
DATE:	7/14	7/15	7/16	7/17	7/18	7/19	7/20
Ethane	60.0	23.8	36.4	21.4	79.8	42.8	8.6
Ethylene	23.4	21.2	49.2	28.2	61.4	34.4	24.6
Propane	50.4	25.2	32.1	16.8	96.3	36.9	8.1
Acetylene	13.8	12.0	3.8	3.8	18.8	11.6	8.0
Isobutane	22.8	28.0	15.6	7.6	55.2	22.8	5.6
n-Butane	71.6	64.0	60.8	22.4	173.2	57.2	15.2
Propylene	9.3	6.9	5.1	2.1	20.1	7.8	4.8
Isopentane	57.0	72.5	41.0	19.5	126.5	50.5	18.0
n-Pentane + Cyclopentane	42.5	43.0	37.0	9.5	37.0	55.0	53.5
Trans-2-pentene + Isoprene	1.6	1.3	1.5	******	******	******	3.6
2,2-Dimethylbutane	0.0	0.0	0.0	******	******	******	0.0
2-Methylpentane	21.3	18.5	6.4	******	******	******	4.7
3-Methylpentane	3.7	3.4	0.4	******	******	******	26.6
1-Hexene	0.0	0.0	0.0	******	******	******	4.6
n-Hexane	9.8	2.8	1.7	******	******	******	5.1
2,4-Dimethylpentane	0.0	0.0	0.0	******	******	******	0.1
2-Methylhexane	3.1	9.0	2.0	******	******	******	2.7
3-Methylhexane	1.8	8.0	0.3	******	******	******	******
2,2,4-Trimethylpentane	3.0	0.8	0.8	******	******	******	******
n-Heptane	2.6	0.9	0.5	******	******	******	0.0
Methylcyclohexane	1.4	0.4	0.7	******	******	******	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	******	******	0.0
2-Methylheptane	10.8	5.5	3.4	******	******	******	9.3
3-Methylheptane	1.4	0.5	0.8	******	******	******	0.3
n-Octane	0.8	0.4	0.7	******	******	******	0.9
n-Nonane	0.8	0.1	0.0	******	******	******	0.6
n-Decane	0.1	0.0	0.0	******	******	******	0.1
n-Undecane	0.0	0.0	0.0	******	******	******	0.0
n-Dodecane	0.0	0.0	0.0	******	******	******	0.0
Benzene	92.6	10.5	19.2	7.5	31.9	9.8	79.7
Toluene	8.7	12.8	5.6	3.3	13.5	10.5	7.0
Ethylbenzene	2.6	5.0	1.8	2.2	4.8	4.8	1.9
p-Xylene + A-Pinene	1.0	1.1	0.5	0.7	1.6	1.8	0.6
m-Xylene	3.4	4.2	1.6	1.0	4.6	4.5	2.4
o-Xylene	1.7	2.2	0.9	0.8	2.3	2.7	1.8
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.3	0.5	0.9	0.3	0.0	2.1	0.3
m-Ethyltoluene	0.3	2.3	0.4	0.6	2.2	0.8	0.3
1,3,5-Trimethylbenzene	0.5	1.0	0.0	0.7	1.7	1.1	0.3
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	6.3	2.4	0.0	1.4	2.7	18.7	10.8
1,2,3-Trimethylbenzene	0.2	1.4	0.0	0.6	1.1	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	34.3	29.4	55.8	30.3	81.5	42.2	37.6
Sum of the Alkanes	364.9	306.8	240.6	97.2	568.0	265.2	159.4
Sum of the Aromatics	117.6	43.4	30.9	19.1	66.4	56.8	105.1
Sum of all compounds, NMHC	530.6	391.6	331.1	150.4	734.7	375.8	310.1

****** = INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3007	3008	3009	3010	3011	3012	3013
DATE:	7/21	7/22	7/23	7/24	7/25	7/26	7/27
Ethane	31.6	20.6	45.0	70.0	34.6	12.8	29.0
Ethylene	29.2	31.8	30.4	32.0	41.6	28.6	32.8
Propane	27.9	22.2	34.8	76.5	49.8	12.9	19.2
Acetylene	9.6	10.4	11.4	2.8	11.4	12.0	14.2
Isobutane	17.6	10.4	17.2	35.2	36.0	10.4	8.0
n-Butane	41.6	24.4	34.0	94.4	118.0	29.6	20.8
Propylene	10.2	9.0	9.6	12.9	15.9	8.1	11.1
Isopentane	31.0	21.5	34.5	46.5	76.0	31.5	22.5
n-Pentane + Cyclopentane	20.5	14.0	22.5	38.5	74.0	20.5	21.5
Trans-2-pentene + Isoprene	1.8	1.5	4.1	3.7	3.7	3.2	2.3
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	17.1	4.1	15.0	6.2	26.0	12.4	******
3-Methylpentane	41.3	19.3	49.3	22.2	31.0	******	9.4
1-Hexene	0.0	1.3	0.0	0.0	0.0	0.0	0.0
n-Hexane	2.8	4.5	15.4	6.5	23.0	25.9	2.4
2,4-Dimethylpentane	******	******	******	2.5	1.2	0.6	0.7
2-Methylhexane	3.5	9.6	3.4	2.8	7.4	14.7	3.3
3-Methylhexane	******	8.0	10.6	5.1	21.3	6.9	0.0
2,2,4-Trimethylpentane	******	******	0.0	******	4.8	24.9	0.0
n-Heptane	******	0.5	4.3	0.9	1.3	2.6	1.2
Methylcyclohexane	******	3.4	0.0	0.0	0.0	2.3	0.9
2,3,4-Trimethylpentane	******	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	******	13.0	13.8	5.5	0.0	26.3	10.7
3-Methylheptane	******	2.5	2.3	0.6	1.5	2.2	0.5
n-Octane	1.3	1.5	3.2	0.0	1.3	1.6	1.3
n-Nonane	1.2	0.9	0.9	0.3	1.1	0.3	0.3
n-Decane	0.1	0.0	0.2	0.0	0.0	0.0	0.1
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	18.2	47.4	38.3	56.4	72.6	34.5	49.0
Toluene	9.1	14.0	14.0	8.3	12.4	23.1	13.1
Ethylbenzene	3.5	1.5	5.6	0.1	2.7	2.4	5.0
p-Xylene + A-Pinene	0.9	0.5	0.2	0.1	6.4	2.3	0.4
m-Xylene	4.8	0.2	0.5	0.1	1.4	5.6	4.0
o-Xylene	2.4	0.5	0.4	0.1	1.5	3.3	2.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.1	0.0	0.0	0.0	0.0	0.3	0.6
m-Ethyltoluene	0.1	0.0	0.0	0.0	0.2	0.8	0.4
1,3,5-Trimethylbenzene	0.0	0.0	0.1	0.0	8.4	1.6	0.3
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	0.0	0.1	0.0	1.0	0.0	0.5
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	41.2	43.8	44.1	48.8	61.2	39.9	46.2
Sum of the Alkanes	237.5	180.4	306.4	411.7	508.3	238.4	152.0
Sum of the Aromatics	39.1	64.1	59.2	65.1	106.6	73.9	75.4
Sum of all compounds, NMHC	327.4	298.5	421.1	528.2	687.5	364.2	287.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3014	3015	3016	3017	3018	3019	3020
DATE:	7/28	7/29	7/30	7/31	8/1	8/2	8/3
Ethane	11.8	44.4	47.2	31.8	67.0	55.2	61.8
Ethylene	38.2	41.8	58.8	61.8	77.8	71.8	67.0
Propane	11.4	46.8	58.5	20.7	108.3	74.4	79.2
Acetylene	13.6	17.8	6.0	6.4	27.8	15.2	17.6
Isobutane	9.2	24.8	49.5	10.4	25.2	47.6	40.4
n-Butane	24.8	62.4	149.6	23.6	64.0	129.2	135.2
Propylene	9.6	12.3	19.5	6.6	24.3	13.8	18.0
Isopentane	27.5	48.0	97.0	21.0	68.0	87.5	99.0
n-Pentane + Cyclopentane	24.5	38.0	74.0	11.0	47.5	72.0	83.5
Trans-2-pentene + Isoprene	2.9	5.0	4.4	1.7	4.0	12.0	4.7
2,2-Dimethylbutane	******	0.0	0.0	0.0	0.2	0.0	1.3
2-Methylpentane	8.0	16.5	19.0	******	2.9	21.2	11.8
3-Methylpentane	35.7	38.9	67.9	******	23.3	17.7	38.8
1-Hexene	0.0	0.0	7.6	0.0	0.7	0.0	0.0
n-Hexane	13.2	14.6	25.5	1.9	18.7	5.1	20.1
2,4-Dimethylpentane	3.4	1.4	0.8	0.0	2.3	0.0	0.0
2-Methylhexane	15.5	15.0	6.3	8.7	15.0	15.8	5.9
3-Methylhexane	******	5.6	******	6.7	11.9	0.0	3.0
2,2,4-Trimethylpentane	0.0	******	******	0.0	******	15.3	20.3
n-Heptane	0.0	3.7	0.9	******	4.8	6.9	3.1
Methylcyclohexane	0.0	0.0	******	******	2.3	******	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	******	0.0	0.0
2-Methylheptane	35.2	23.7	0.0	9.5	24.6	0.0	23.2
3-Methylheptane	******	9.2	1.6	1.0	10.4	0.0	3.4
n-Octane	2.5	5.1	1.0	4.0	5.3	4.4	16.7
n-Nonane	2.5	1.0	0.4	0.2	1.0	2.0	2.2
n-Decane	0.4	0.3	0.1	0.0	0.1	0.1	0.3
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	41.7	37.3	37.7	23.0	43.2	69.8	19.5
Toluene	13.8	21.0	10.4	15.7	42.7	34.6	25.9
Ethylbenzene	2.2	2.4	1.0	0.0	10.4	15.6	4.8
p-Xylene + A-Pinene	2.6	8.0	2.6	1.9	6.4	2.9	7.7
m-Xylene	2.0	13.4	4.0	5.6	16.8	6.0	3.6
o-Xylene	2.2	3.8	8.8	0.9	10.4	14.4	6.2
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	5.3	1.4	8.1	0.0	9.9	15.3	1.0
m-Ethyltoluene	0.0	0.0	0.0	0.0	8.1	3.9	1.0
1,3,5-Trimethylbenzene	1.0	1.0	0.9	0.0	2.1	2.0	1.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	1.4	0.0	0.0
1,2,4-Trimethylbenzene	1.0	1.0	1.0	0.0	2.4	25.8	25.2
1,2,3-Trimethylbenzene	0.0	1.0	1.0	0.0	3.2	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	50.7	59.1	90.3	70.1	106.8	97.6	89.7
Sum of the Alkanes	225.6	399.4	599.3	150.5	502.8	554.4	649.2
Sum of the Aromatics	71.8	90.3	75.5	47.1	157.0	190.3	95.9
Sum of all compounds, NMHC	361.7	566.6	771.1	274.1	794.4	857.5	852.4

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3021	3022	3023	3024	3025	3026	3027
DATE:	8/ 4	8/ 5	8/ 6	8/ 7	8/ 8	8/ 9	8/10
Ethane	26.2	33.6	30.8	45.0	33.0	25.6	42.2
Ethylene	69.2	51.0	45.2	43.6	37.6	33.0	41.8
Propane	27.3	31.5	35.4	56.1	40.2	33.3	49.2
Acetylene	22.8	12.2	6.6	6.6	11.6	13.2	13.8
Isobutane	20.4	19.2	19.6	35.6	29.6	26.4	30.0
n-Butane	62.4	54.4	56.0	82.8	72.8	62.4	76.8
Propylene	12.9	10.8	9.9	13.5	12.9	11.7	16.2
Isopentane	60.5	55.0	52.0	49.5	64.5	43.0	50.5
n-Pentane + Cyclopentane	44.0	37.6	31.5	41.5	43.5	30.0	35.5
Trans-2-pentene + Isoprene	3.6	3.6	1.3	1.8	4.8	3.1	4.2
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.1	0.0	0.0
2-Methylpentane	11.1	4.6	2.4	3.1	2.8	1.2	10.7
3-Methylpentane	20.5	17.5	14.4	14.0	13.1	4.0	******
1-Hexene	******	******	0.0	0.0	9.3	0.2	0.1
n-Hexane	9.7	9.3	5.3	6.9	16.8	8.6	12.2
2,4-Dimethylpentane	0.9	0.0	0.0	0.0	2.5	0.5	1.2
2-Methylhexane	7.5	6.2	3.8	2.5	15.0	7.1	16.4
3-Methylhexane	******	1.0	0.0	0.7	6.3	0.6	23.3
2,2,4-Trimethylpentane	******	0.8	3.4	0.2	22.9	******	17.2
n-Heptane	2.0	1.2	3.4	0.9	6.9	2.8	2.1
Methylcyclohexane	2.0	0.0	******	0.0	5.7	2.6	3.9
2,3,4-Trimethylpentane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylheptane	14.3	10.4	2.7	4.9	17.4	10.2	7.5
3-Methylheptane	1.8	0.8	0.0	0.6	21.1	2.3	1.7
n-Octane	2.3	2.3	0.0	1.0	8.8	2.4	1.6
n-Nonane	0.6	1.3	0.0	0.4	3.6	2.5	0.6
n-Decane	0.0	0.6	0.0	0.1	0.5	0.3	0.3
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	0.0	0.0
Benzene	57.6	******	******	20.0	28.6	36.9	14.8
Toluene	18.2	******	******	6.8	17.4	13.3	15.6
Ethylbenzene	5.6	******	******	3.7	6.3	5.9	0.0
p-Xylene + A-Pinene	4.5	******	******	0.5	1.5	1.8	0.0
m-Xylene	3.6	******	******	1.6	4.0	4.8	0.0
o-Xylene	3.6	******	******	2.7	3.6	4.3	0.0
B-Pinene	0.0	******	******	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	******	******	5.3	11.6	2.5	8.9
m-Ethyltoluene	0.0	******	******	1.5	4.5	0.0	5.3
1,3,5-Trimethylbenzene	1.0	******	******	1.1	3.7	3.4	1.1
t-Butylbenzene	0.0	******	******	0.0	0.0	1.5	0.0
o-Ethyltoluene	0.0	******	******	0.0	3.6	1.8	0.0
1,2,4-Trimethylbenzene	0.0	******	******	75.6	106.7	52.5	76.8
1,2,3-Trimethylbenzene	0.0	******	******	1.4	9.6	7.4	2.1
n-Butylbenzene	12.0	******	******	0.0	14.2	24.0	0.0
Sum of the Alkenes	85.7	65.4	56.4	58.9	64.6	48.0	62.3
Sum of the Alkanes	313.5	287.3	260.7	345.8	427.1	265.8	382.9
Sum of the Aromatics	106.1	0.0	0.0	120.2	215.3	160.1	124.6
Sum of all compounds, NMHC	528.1	364.9	323.7	531.5	718.6	487.1	583.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3028	3029	3030	3031	3032	3033	3034
DATE:	8/11	8/12	8/13	8/14	8/15	8/16	8/17
Ethane	26.6	18.8	59.6	29.2	73.2	99.2	25.8
Ethylene	34.2	37.6	34.6	37.2	74.0	44.0	49.6
Propane	26.4	20.1	41.7	21.6	50.1	103.8	29.7
Acetylene	11.4	13.6	6.8	8.0	46.8	20.0	27.0
Isobutane	10.4	8.4	13.2	13.6	47.5	85.2	10.8
n-Butane	24.0	23.2	32.0	31.6	102.4	227.6	32.0
Propylene	11.1	11.7	5.7	7.8	21.3	16.2	9.0
Isopentane	28.5	24.5	26.5	31.5	112.0	150.5	44.0
n-Pentane + Cyclopentane	19.0	17.0	30.5	18.5	70.5	85.0	76.0
Trans-2-pentene + Isoprene	1.9	2.2	3.7	1.3	5.8	3.6	4.4
2,2-Dimethylbutane	0.0	0.4	0.0	0.0	8.6	0.0	0.0
2-Methylpentane	3.0	******	3.8	3.3	22.2	21.4	12.2
3-Methylpentane	12.3	10.5	5.1	13.4	25.5	27.2	14.5
1-Hexene	0.0	******	0.0	0.0	4.6	0.0	0.0
n-Hexane	1.7	4.8	1.4	4.4	22.5	15.8	8.1
2,4-Dimethylpentane	0.0	0.4	0.3	0.2	5.3	2.5	1.2
2-Methylhexane	0.3	3.4	2.5	2.7	14.3	16.1	6.9
3-Methylhexane	5.7	0.7	0.2	0.2	4.2	3.3	2.0
2,2,4-Trimethylpentane	8.0	******	0.0	41.6	20.7	13.9	4.3
n-Heptane	12.7	1.6	22.6	3.5	5.8	5.0	2.3
Methylcyclohexane	0.0	2.0	0.0	0.0	3.5	3.5	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	3.2	1.2	0.0
2-Methylheptane	10.5	6.6	6.2	5.0	27.7	19.9	15.1
3-Methylheptane	1.1	0.6	0.2	0.5	4.8	4.0	1.5
n-Octane	2.1	1.3	2.4	3.9	3.2	7.6	2.2
n-Nonane	0.7	0.3	0.6	0.4	1.1	2.6	0.5
n-Decane	0.6	0.1	0.1	0.1	0.2	1.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	98.4	24.0	5.9	13.9	62.7	53.1	12.6
Toluene	13.2	9.3	26.9	8.5	32.9	15.4	5.6
Ethylbenzene	4.0	1.7	0.0	6.9	7.6	10.1	2.8
p-Xylene + A-Pinene	4.0	3.9	0.0	2.0	4.0	3.0	0.4
m-Xylene	5.3	7.0	0.0	2.9	10.6	7.4	2.0
o-Xylene	3.5	4.2	0.0	3.5	8.9	3.0	0.3
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	2.6	22.5	0.0	33.3	14.4	9.2	0.6
m-Ethyltoluene	1.2	8.9	0.0	13.9	5.8	6.3	0.0
1,3,5-Trimethylbenzene	1.8	14.4	0.0	24.2	1.9	7.4	0.2
t-Butylbenzene	0.0	8.0	0.0	46.0	0.0	0.0	0.0
o-Ethyltoluene	1.2	6.3	0.0	28.8	1.3	0.0	0.0
1,2,4-Trimethylbenzene	53.1	63.0	0.0	125.1	109.8	31.5	0.0
1,2,3-Trimethylbenzene	3.4	26.1	0.0	78.3	9.0	13.0	0.0
n-Butylbenzene	3.9	25.6	0.0	107.0	15.2	21.4	0.0
Sum of the Alkenes	47.2	51.5	44.0	46.3	105.7	63.8	63.0
Sum of the Alkanes	193.6	144.7	248.9	225.2	628.5	896.3	269.1
Sum of the Aromatics	195.6	224.9	32.8	494.3	284.1	180.8	24.5
Sum of all compounds, NMHC	447.8	434.7	332.5	773.8	1065.1	1160.9	403.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3035	3036	3037	3038	3039	3040	3041
DATE:	8/18	8/19	8/20	8/21	8/22	8/23	8/24
Ethane	50.8	17.0	46.0	105.2	171.4	33.6	59.0
Ethylene	68.6	51.2	53.0	42.6	90.0	64.8	59.0
Propane	40.2	14.4	24.6	93.9	250.5	26.1	55.8
Acetylene	32.6	30.2	23.6	14.2	64.6	20.4	25.6
Isobutane	18.8	18.0	21.6	58.8	297.2	18.8	20.0
n-Butane	52.0	54.4	55.6	160.4	940.4	43.2	54.4
Propylene	11.7	11.4	12.6	10.5	39.3	12.0	12.9
Isopentane	58.5	65.0	65.5	90.5	614.5	55.0	55.5
n-Pentane + Cyclopentane	39.5	40.5	36.5	69.0	475.0	31.5	36.5
Trans-2-pentene + Isoprene	2.1	3.2	2.4	2.5	31.8	3.9	2.6
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	9.7	10.1	11.3	11.1	99.6	15.5	16.0
3-Methylpentane	18.0	23.2	13.2	14.3	86.4	20.0	23.1
1-Hexene	0.1	0.0	0.0	0.0	13.0	0.0	0.0
n-Hexane	10.6	9.8	7.2	12.9	98.8	18.1	9.7
2,4-Dimethylpentane	1.4	1.8	0.1	2.0	14.7	0.7	0.7
2-Methylhexane	8.3	8.0	5.2	5.9	44.3	7.0	5.9
3-Methylhexane	3.0	4.2	1.2	2.8	22.4	2.5	3.1
2,2,4-Trimethylpentane	6.6	10.4	9.9	5.6	33.8	15.7	22.4
n-Heptane	14.9	10.4	4.1	4.2	38.0	4.9	1.2
Methylcyclohexane	******	1.4	0.0	4.2	20.3	3.3	2.1
2,3,4-Trimethylpentane	******	1.0	2.4	0.5	4.8	0.0	1.2
2-Methylheptane	20.0	22.9	******	17.1	59.5	21.7	16.0
3-Methylheptane	3.5	3.6	10.4	2.8	18.3	4.0	2.9
n-Octane	2.1	4.5	0.0	1.6	16.0	2.4	4.9
n-Nonane	0.5	0.9	0.6	0.9	2.7	0.4	0.6
n-Decane	0.0	0.1	0.0	0.1	0.4	0.5	0.1
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	24.3	24.7	39.6	15.0	47.4	29.3	48.0
Toluene	15.8	17.5	21.7	9.2	35.9	9.0	9.4
Ethylbenzene	3.7	6.0	6.1	1.8	7.9	3.5	3.5
p-Xylene + A-Pinene	2.3	3.1	3.2	0.6	5.4	0.9	1.2
m-Xylene	6.6	9.1	8.3	2.9	16.2	4.3	4.0
o-Xylene	2.3	5.3	5.4	0.9	6.2	2.4	3.4
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.3	0.7	2.5	0.5	0.5	0.0	0.9
m-Ethyltoluene	0.6	0.6	0.7	0.0	2.8	0.6	0.8
1,3,5-Trimethylbenzene	0.8	0.7	1.0	0.3	1.0	0.3	0.3
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.5	0.3	0.4	0.0	0.5	0.2	0.4
1,2,4-Trimethylbenzene	4.7	21.6	40.5	2.0	11.9	2.0	28.1
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.3	0.3	0.7	0.5
n-Butylbenzene	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Sum of the Alkenes	82.5	65.8	68.0	55.6	174.1	80.7	74.5
Sum of the Alkanes	358.4	321.6	315.4	663.8	3309.0	324.1	391.1
Sum of the Aromatics	61.9	89.6	129.4	33.5	136.2	53.2	100.5
Sum of all compounds, NMHC	535.4	507.2	536.4	767.1	3683.9	478.4	591.7

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3042	3043	3045	3046	3047	3048	3049
DATE:	8/25	8/26	8/27	8/28	8/29	8/30	8/31
Ethane	26.0	48.4	28.8	37.2	30.6	3.0	70.1
Ethylene	53.4	48.2	19.0	28.4	67.2	5.8	50.2
Propane	21.3	40.5	18.0	21.6	28.2	21.6	43.2
Acetylene	20.8	29.2	28.4	41.8	22.0	22.2	13.6
Isobutane	14.4	21.2	8.8	12.8	14.0	7.6	24.8
n-Butane	35.2	53.2	27.2	28.8	37.2	40.0	68.8
Propylene	8.4	6.9	4.5	4.2	9.3	9.9	14.8
Isopentane	45.5	47.0	17.5	15.5	45.0	53.5	55.5
n-Pentane + Cyclopentane	16.5	35.0	4.5	9.5	29.0	31.5	39.0
Trans-2-pentene + Isoprene	3.7	2.2	1.5	0.5	1.8	3.1	5.8
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	11.7	7.3	3.1	2.0	6.0	6.4	15.6
3-Methylpentane	27.7	24.3	8.6	5.7	6.6	9.3	21.4
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	6.1	5.3	3.3	2.4	5.8	5.1	18.5
2,4-Dimethylpentane	0.0	0.4	0.0	0.0	0.2	0.7	0.8
2-Methylhexane	5.5	2.3	1.4	0.0	4.8	6.0	3.7
3-Methylhexane	2.1	1.4	0.6	0.2	1.6	1.4	1.7
2,2,4-Trimethylpentane	10.8	8.8	0.0	0.0	3.6	3.2	30.4
n-Heptane	0.4	2.8	******	0.0	0.7	15.5	3.3
Methylcyclohexane	0.2	******	0.0	0.0	******	2.1	0.7
2,3,4-Trimethylpentane	4.0	0.0	0.0	0.0	4.7	8.0	17.6
2-Methylheptane	14.2	8.6	3.6	0.0	12.2	4.0	******
3-Methylheptane	0.7	0.8	0.2	0.0	0.7	1.6	******
n-Octane	4.9	0.8	0.2	0.0	1.1	1.6	1.6
n-Nonane	5.9	3.6	0.1	0.0	0.2	5.4	0.7
n-Decane	0.8	0.5	0.1	0.0	0.0	0.1	0.1
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	12.3	9.2	14.6	7.1	14.0	25.7	16.9
Toluene	11.4	4.9	4.4	3.2	6.7	16.4	4.5
Ethylbenzene	6.3	7.6	1.0	0.3	1.7	7.6	0.6
p-Xylene + A-Pinene	1.4	1.1	0.5	0.2	0.5	1.2	0.6
m-Xylene	5.5	3.7	1.6	0.4	2.7	5.2	1.2
o-Xylene	4.4	2.4	0.9	0.3	1.5	3.6	0.7
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	8.3	10.3	0.0	0.0	0.8	0.2	1.0
m-Ethyltoluene	3.5	4.7	0.2	0.0	0.4	0.3	0.4
1,3,5-Trimethylbenzene	1.0	0.0	0.0	0.0	0.0	1.0	0.5
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.8	3.1	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	34.9	0.0	1.2	1.6	5.8	2.3	43.2
1,2,3-Trimethylbenzene	1.4	46.1	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	73.1	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	65.5	57.3	25.0	33.1	78.3	18.8	70.4
Sum of the Alkanes	253.9	312.2	126.0	135.7	232.2	224.6	417.5
Sum of the Aromatics	91.2	166.2	24.4	13.1	34.1	63.5	69.6
Sum of all compounds, NMHC	431.4	564.9	203.8	223.7	366.6	329.1	571.1

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3051	3052	3054	3056	3057	3058	3059
DATE:	9/1	9/2	9/3	9/4	9/5	9/6	9/7
Ethane	29.4	73.6	30.6	14.8	19.6	39.6	32.0
Ethylene	36.0	62.2	37.4	39.6	4.0	46.0	39.6
Propane	21.3	50.7	20.4	12.9	10.8	43.8	23.1
Acetylene	16.4	30.0	12.0	5.0	6.2	26.4	23.2
Isobutane	14.8	22.8	14.8	5.6	4.8	22.4	15.6
n-Butane	33.6	60.4	40.0	13.6	12.0	81.6	39.2
Propylene	7.2	14.4	6.3	3.9	6.9	12.6	8.4
Isopentane	39.5	70.0	47.0	16.5	15.5	70.0	51.5
n-Pentane + Cyclopentane	26.5	40.0	29.5	10.0	9.0	46.5	34.0
Trans-2-pentene + Isoprene	3.3	3.2	7.3	1.4	0.5	3.6	4.5
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	12.1	9.4	7.4	2.3	3.2	12.6	17.4
3-Methylpentane	13.8	32.7	21.2	6.6	4.2	15.5	15.5
1-Hexene	0.0	******	0.0	0.0	0.0	0.0	0.8
n-Hexane	10.8	8.4	7.4	2.0	1.8	12.9	20.6
2,4-Dimethylpentane	1.0	1.0	0.0	0.1	1.4	0.7	1.4
2-Methylhexane	7.0	11.0	******	1.2	0.3	9.9	9.8
3-Methylhexane	2.1	2.0	1.4	0.4	0.5	2.8	3.1
2,2,4-Trimethylpentane	7.2	11.6	6.6	2.1	8.8	8.8	5.6
n-Heptane	2.3	3.1	******	4.1	1.2	1.4	3.5
Methylcyclohexane	0.0	2.1	0.0	0.0	0.0	******	******
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.8
2-Methylheptane	19.8	13.9	0.0	0.0	5.9	16.9	20.2
3-Methylheptane	2.6	1.7	1.2	0.0	0.3	3.2	4.3
n-Octane	2.4	1.4	2.4	0.0	0.3	4.0	4.0
n-Nonane	0.5	3.4	0.5	0.0	0.2	0.3	1.2
n-Decane	0.1	0.4	0.0	0.0	0.0	0.0	0.1
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	18.5	24.0	25.5	23.4	4.0	9.7	42.1
Toluene	11.4	13.3	15.1	3.5	5.2	4.0	20.3
Ethylbenzene	1.5	8.0	3.2	0.6	0.7	2.4	5.0
p-Xylene + A-Pinene	1.2	4.0	1.6	0.5	0.0	1.3	3.4
m-Xylene	2.7	9.6	5.6	1.3	0.0	3.9	7.9
o-Xylene	1.2	1.6	1.2	0.9	0.0	1.3	5.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	0.0	0.9	0.0	1.1	1.0	1.0
m-Ethyltoluene	0.0	3.3	2.2	0.0	0.3	0.5	2.2
1,3,5-Trimethylbenzene	0.0	0.9	0.9	0.0	0.0	0.7	0.7
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.5
1,2,4-Trimethylbenzene	1.9	27.0	14.4	2.4	2.0	12.3	25.8
1,2,3-Trimethylbenzene	0.0	9.0	0.9	0.0	0.0	0.0	0.9
n-Butylbenzene	0.0	10.0	2.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	46.5	79.8	51.0	44.9	11.4	62.2	52.5
Sum of the Alkanes	246.8	419.6	230.4	92.2	99.8	392.9	302.9
Sum of the Aromatics	38.4	110.7	73.5	32.6	13.3	37.1	114.9
Sum of all compounds, NMHC	348.1	640.1	366.9	174.7	130.7	518.6	493.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3060	3063	3064	3065	3067	3068	3069
DATE:	9/8	9/9	9/10	9/11	9/12	9/13	9/14
Ethane	87.4	56.0	20.6	9.8	23.2	32.4	11.8
Ethylene	53.2	47.0	35.4	23.4	39.2	46.6	29.2
Propane	42.6	94.8	17.4	8.7	20.1	38.1	11.1
Acetylene	34.8	20.8	9.2	3.1	13.6	20.0	11.2
Isobutane	30.4	54.0	6.8	5.6	11.2	22.0	5.2
n-Butane	69.6	156.8	18.8	13.2	28.0	64.4	14.4
Propylene	15.3	14.7	3.3	2.8	4.8	9.6	2.1
Isopentane	89.0	99.0	20.0	10.5	31.5	59.5	18.0
n-Pentane + Cyclopentane	54.0	73.5	9.5	7.5	22.5	44.0	13.0
Trans-2-pentene + Isoprene	7.6	5.2	0.6	1.0	1.7	3.3	0.4
2,2-Dimethylbutane	0.0	0.1	0.0	0.0	0.0	0.1	0.0
2-Methylpentane	29.6	19.2	3.2	1.1	4.4	10.7	2.1
3-Methylpentane	31.0	15.5	8.9	1.3	8.9	11.1	1.2
1-Hexene	0.0	0.1	0.0	0.0	0.0	0.0	0.0
n-Hexane	24.1	16.4	3.4	0.8	4.6	14.3	2.2
2,4-Dimethylpentane	5.9	2.9	0.1	0.1	0.0	1.6	0.1
2-Methylhexane	22.0	11.1	1.2	0.7	3.6	7.9	0.4
3-Methylhexane	15.4	3.4	0.5	4.9	0.7	2.6	0.2
2,2,4-Trimethylpentane	17.6	9.8	1.4	0.3	3.4	9.2	0.0
n-Heptane	9.8	4.9	0.8	0.0	0.6	4.0	0.1
Methylcyclohexane	0.4	0.6	0.0	0.0	0.0	0.0	0.1
2,3,4-Trimethylpentane	1.3	0.0	0.0	1.5	0.0	0.0	0.0
2-Methylheptane	30.4	20.0	3.9	1.5	7.4	15.1	3.3
3-Methylheptane	6.5	6.4	0.8	0.8	0.3	3.2	0.2
n-Octane	6.1	9.2	1.0	1.0	1.1	2.4	0.1
n-Nonane	2.0	0.7	0.2	0.5	4.7	0.9	0.1
n-Decane	0.1	0.1	0.1	0.3	0.2	0.1	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	32.4	27.2	11.2	9.4	41.4	20.2	13.2
Toluene	35.0	14.5	4.0	5.1	12.6	9.4	5.9
Ethylbenzene	7.7	3.8	0.3	2.5	8.0	2.1	1.1
p-Xylene + A-Pinene	5.9	2.2	0.4	0.8	0.6	1.0	0.8
m-Xylene	14.4	5.5	1.3	1.2	3.5	3.7	2.3
o-Xylene	7.5	1.9	0.3	1.6	2.5	1.0	0.7
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.7	0.3	0.3	2.4	4.2	0.0	0.2
m-Ethyltoluene	5.0	0.9	0.0	0.8	1.9	0.3	0.0
1,3,5-Trimethylbenzene	1.7	1.2	0.0	0.4	2.4	0.5	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.8	0.7	0.0	0.4	0.5	0.0	0.0
1,2,4-Trimethylbenzene	21.3	7.6	2.4	22.4	35.1	1.1	2.9
1,2,3-Trimethylbenzene	0.9	0.0	0.0	0.9	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	1.9	0.0	0.0	0.0
Sum of the Alkenes	76.1	67.0	39.3	27.2	45.7	59.5	31.7
Sum of the Alkanes	575.2	654.4	118.6	70.1	176.4	343.6	83.6
Sum of the Aromatics	133.3	65.8	20.2	49.8	112.7	39.3	27.1
Sum of all compounds, NMHC	819.4	808.0	187.3	150.2	348.4	462.4	153.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3070	3071	3073	3075	3076	3077	3078
DATE:	9/15	9/16	9/17	9/18	9/19	9/20	9/21
Ethane	32.4	39.4	26.0	29.8	20.2	117.8	23.6
Ethylene	58.8	59.0	33.6	35.6	66.4	87.2	42.6
Propane	30.3	54.0	21.3	33.6	23.7	64.8	21.9
Acetylene	45.0	45.4	7.6	6.4	17.6	68.8	13.6
Isobutane	12.8	39.6	8.8	24.8	9.2	46.4	12.8
n-Butane	28.2	112.0	21.2	57.6	26.0	128.4	33.2
Propylene	9.3	18.9	3.0	10.8	8.1	26.7	8.1
Isopentane	34.0	111.5	18.5	32.5	29.5	147.0	36.0
n-Pentane + Cyclopentane	23.5	69.5	14.0	26.0	21.0	103.5	20.5
Trans-2-pentene + Isoprene	1.6	7.2	1.3	******	1.1	6.9	0.9
2,2-Dimethylbutane	0.0	2.4	0.0	******	0.0	0.0	0.0
2-Methylpentane	5.9	22.4	7.7	******	2.7	30.1	3.7
3-Methylpentane	2.9	24.6	3.0	******	3.5	42.7	6.6
1-Hexene	0.0	0.2	0.0	******	0.0	0.0	0.0
n-Hexane	7.4	21.8	0.8	******	3.2	27.1	4.0
2,4-Dimethylpentane	0.6	5.1	0.0	******	0.4	0.0	0.0
2-Methylhexane	5.7	20.9	1.4	******	3.6	51.8	3.6
3-Methylhexane	1.9	8.5	0.7	******	1.4	22.4	5.1
2,2,4-Trimethylpentane	3.7	9.5	******	******	1.4	22.4	1.1
n-Heptane	2.1	23.5	******	******	0.0	39.9	15.0
Methylcyclohexane	0.2	5.1	******	******	******	10.5	0.8
2,3,4-Trimethylpentane	0.0	3.1	******	******	0.0	4.0	0.0
2-Methylheptane	15.5	41.9	1.4	******	9.6	76.9	0.0
3-Methylheptane	2.4	8.4	0.0	******	0.8	12.8	0.0
n-Octane	1.1	7.7	0.8	******	2.0	10.4	0.8
n-Nonane	0.3	8.0	0.1	******	0.4	3.1	1.2
n-Decane	0.0	0.0	0.0	******	0.0	0.0	1.0
n-Undecane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	******	0.0	0.0	0.0
Benzene	14.9	27.6	2.1	12.5	14.4	45.5	17.4
Toluene	8.4	21.0	4.2	7.4	5.6	40.6	7.7
Ethylbenzene	1.0	8.0	1.3	2.8	1.3	7.9	2.4
p-Xylene + A-Pinene	1.2	3.2	0.5	1.7	0.7	5.4	0.6
m-Xylene	3.6	9.6	1.3	2.8	3.1	14.0	2.4
o-Xylene	0.9	4.8	0.6	2.0	1.3	4.5	1.8
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.2	1.0	0.7	2.8	0.0	0.3	0.2
m-Ethyltoluene	0.3	5.5	0.4	1.1	0.9	5.1	0.1
1,3,5-Trimethylbenzene	0.0	1.4	0.0	0.3	0.0	1.4	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.8	0.0	0.0	0.0	0.5	0.0
1,2,4-Trimethylbenzene	1.8	18.0	42.3	24.3	3.2	21.4	0.0
1,2,3-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Sum of the Alkenes	69.7	85.3	37.9	46.4	75.6	120.8	51.8
Sum of the Alkanes	210.9	638.9	125.7	204.3	158.6	962.0	190.9
Sum of the Aromatics	32.3	100.9	53.4	57.7	30.5	146.6	32.7
Sum of all compounds, NMHC	357.9	870.5	224.6	314.8	282.3	1298.2	288.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

SAMPLE NUMBER:	3079	3080	3081	3082	3083	3084	3085
DATE:	9/22	9/23	9/24	9/25	9/26	9/27	9/28
Ethane	21.8	36.6	13.4	51.0	47.4	11.0	8.6
Ethylene	43.2	43.6	45.2	34.4	58.4	41.8	41.4
Propane	19.8	33.0	8.7	62.4	36.0	10.8	7.8
Acetylene	20.2	9.6	8.4	6.4	38.0	20.2	15.4
Isobutane	13.6	17.2	5.2	21.2	24.5	12.8	10.0
n-Butane	26.4	59.2	14.4	66.8	67.2	32.4	28.0
Propylene	8.1	1.5	3.0	5.7	14.4	9.3	7.5
Isopentane	45.0	36.0	15.0	44.5	76.5	47.5	38.0
n-Pentane + Cyclopentane	34.0	22.0	11.5	26.5	52.5	26.0	22.5
Trans-2-pentene + Isoprene	0.9	1.8	0.4	1.0	2.6	1.1	1.6
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	5.8	30.7	1.0	3.5	8.9	2.0	15.6
3-Methylpentane	7.6	14.5	1.2	9.2	12.2	2.8	5.1
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	6.4	2.6	1.5	4.8	10.0	3.6	2.1
2,4-Dimethylpentane	0.7	0.2	0.0	0.2	1.6	0.4	0.2
2-Methylhexane	9.0	1.4	2.3	4.2	16.9	3.3	3.1
3-Methylhexane	3.8	9.3	0.8	7.7	11.9	2.1	2.0
2,2,4-Trimethylpentane	5.9	0.0	0.0	1.6	4.8	0.1	12.0
n-Heptane	2.0	13.9	0.7	0.7	2.1	2.8	1.2
Methylcyclohexane	0.0	7.7	0.2	0.1	3.5	0.7	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.8	0.1	0.1
2-Methylheptane	34.6	4.6	4.6	3.8	23.2	10.0	7.2
3-Methylheptane	2.1	0.0	0.2	0.2	4.0	0.4	0.8
n-Octane	3.6	0.8	0.4	0.8	3.2	2.0	0.4
n-Nonane	2.2	0.9	0.1	0.1	0.5	0.6	0.2
n-Decane	0.5	0.1	0.0	0.1	0.2	0.1	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	43.2	28.9	14.2	18.9	35.5	27.0	13.2
Toluene	39.9	14.0	6.3	2.9	17.5	13.3	7.0
Ethylbenzene	11.2	0.2	1.7	0.4	5.5	2.4	3.6
p-Xylene + A-Pinene	6.4	0.1	1.2	0.2	3.2	1.5	3.3
m-Xylene	20.0	0.3	2.3	0.4	7.3	4.1	8.1
o-Xylene	11.0	0.0	1.5	0.2	5.0	2.1	5.0
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	4.3	0.3	0.3	0.5	2.8	0.5	0.7
m-Ethyltoluene	2.5	0.2	0.2	0.2	1.8	0.4	0.6
1,3,5-Trimethylbenzene	0.5	1.8	0.3	0.3	4.0	0.5	0.9
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.3	0.0	0.4	0.2	4.7	0.0	0.7
1,2,4-Trimethylbenzene	51.4	0.0	2.0	7.8	37.8	2.0	2.0
1,2,3-Trimethylbenzene	0.0	0.0	1.8	0.5	2.0	1.1	1.1
n-Butylbenzene	0.0	0.0	1.9	0.7	4.4	1.2	1.2
Sum of the Alkenes	52.2	46.9	48.6	41.1	75.4	52.2	50.5
Sum of the Alkanes	244.8	290.7	81.2	309.4	407.9	171.5	164.9
Sum of the Aromatics	190.7	45.8	34.1	33.2	131.5	56.1	47.4
Sum of all compounds, NMHC	507.9	393.0	172.3	390.1	652.8	300.0	278.2

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0600-0900 CDT

	SAMPLE NUMBER:	3086
	DATE:	9/29
Ethane		14.8
Ethylene		61.2
Propane		13.8
Acetylene		28.2
Isobutane		16.8
n-Butane		51.2
Propylene		12.0
Isopentane		63.5
n-Pentane + Cyclopentane		36.0
Trans-2-pentene + Isoprene		1.7
2,2-Dimethylbutane		0.0
2-Methylpentane		******
3-Methylpentane		9.2
1-Hexene		0.0
n-Hexane		1.9
2,4-Dimethylpentane		0.2
2-Methylhexane		4.1
3-Methylhexane		13.3
2,2,4-Trimethylpentane		1.6
n-Heptane		3.5
Methylcyclohexane		1.4
2,3,4-Trimethylpentane		0.0
2-Methylheptane		10.6
3-Methylheptane		0.5
n-Octane		0.8
n-Nonane		0.5
n-Decane		0.1
n-Undecane		0.0
n-Dodecane		0.0
Benzene		36.0
Toluene		23.8
Ethylbenzene		9.6
p-Xylene + A-Pinene		3.7
m-Xylene		6.8
o-Xylene		6.2
B-Pinene		0.0
n-Propylbenzene		9.3
m-Ethyltoluene		6.6
1,3,5-Trimethylbenzene		24.3
t-Butylbenzene		19.0
o-Ethyltoluene		13.1
1,2,4-Trimethylbenzene		17.8
1,2,3-Trimethylbenzene		34.2
n-Butylbenzene		57.0
Sum of the Alkenes		74.9
Sum of the Alkanes		243.8
Sum of the Aromatics		267.4
Sum of all compounds, NMHC		614.3

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

SPERRY, TULSA
0600-0900 CDT

SAMPLE NUMBER:	4000	4003	4005	4008	4011	4014	4016
DATE:	8/26	8/31	9/2	9/3	9/8	9/11	9/15
Ethane	34.6	30.2	247.8	560.0	260.8	25.6	27.4
Ethylene	8.2	10.8	36.6	27.8	23.2	9.6	7.0
Propane	39.3	29.7	265.8	510.6	202.8	14.7	25.8
Acetylene	8.8	10.0	34.4	25.6	18.8	2.2	10.4
Isobutane	19.2	20.8	157.2	218.8	55.2	7.6	12.4
n-Butane	36.8	44.4	196.0	412.8	115.2	8.8	18.0
Propylene	4.2	8.7	18.9	15.0	7.5	3.9	3.0
Isopentane	33.0	36.0	157.5	274.0	78.0	9.0	19.5
n-Pentane + Cyclopentane	20.0	31.5	125.0	264.0	83.0	3.5	8.5
Trans-2-pentene + Isoprene	1.4	3.3	1.9	10.1	3.2	3.3	0.8
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	3.4	4.7	7.7	56.9	19.2	2.2	2.7
3-Methylpentane	1.7	2.0	26.6	49.9	29.8	2.2	5.9
1-Hexene	1.3	0.0	0.0	0.0	0.0	0.5	0.0
n-Hexane	4.3	6.9	33.1	70.8	0.0	2.1	3.2
2,4-Dimethylpentane	0.8	0.3	24.5	9.9	1.0	******	0.0
2-Methylhexane	2.5	5.0	5.2	55.0	10.9	5.8	1.4
3-Methylhexane	0.6	1.8	3.1	25.2	3.0	2.1	1.4
2,2,4-Trimethylpentane	0.5	1.7	0.0	88.0	11.5	0.0	0.5
n-Heptane	1.5	1.5	20.5	113.2	5.2	******	******
Methylcyclohexane	0.6	******	17.1	77.0	4.1	******	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.8	9.6	2.3	0.0	0.0
2-Methylheptane	3.8	8.9	25.9	3.7	11.1	2.4	2.8
3-Methylheptane	1.1	1.1	6.4	23.2	4.0	0.7	1.2
n-Octane	0.8	0.7	0.2	9.6	3.2	1.9	0.0
n-Nonane	0.3	0.5	0.5	0.9	0.7	1.2	0.0
n-Decane	0.0	0.0	0.0	0.2	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	******	0.0	0.0	0.0	0.0
Benzene	0.4	8.1	******	111.3	15.6	17.3	12.6
Toluene	0.7	12.6	******	46.9	7.6	4.2	4.5
Ethylbenzene	0.0	1.5	******	0.1	1.3	0.5	0.3
p-Xylene + A-Pinene	0.0	1.0	******	0.9	0.7	0.2	0.2
m-Xylene	0.0	2.4	******	3.6	2.2	0.3	0.4
o-Xylene	0.0	1.3	******	3.2	1.1	0.1	0.3
B-Pinene	0.0	0.0	******	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	0.3	******	0.0	0.2	0.3	0.0
m-Ethyltoluene	0.0	0.3	******	0.0	0.2	0.1	0.0
1,3,5-Trimethylbenzene	0.0	0.3	******	0.1	0.4	1.2	0.0
t-Butylbenzene	0.0	0.0	******	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	******	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	2.4	******	0.1	3.2	0.0	0.0
1,2,3-Trimethylbenzene	0.0	0.5	******	0.1	0.0	0.0	0.0
n-Butylbenzene	0.0	0.6	******	0.0	0.0	0.0	0.0
Sum of the Alkenes	15.1	22.8	57.4	52.9	33.9	17.3	10.8
Sum of the Alkanes	204.8	227.7	1320.9	2833.6	901.0	89.8	130.7
Sum of the Aromatics	1.1	31.3	0.0	166.3	32.5	24.2	18.3
Sum of all compounds, NMHC	229.8	291.8	1412.7	3078.4	986.2	133.5	170.2

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

SPERRY, TULSA
0600-0900 CDT

SAMPLE NUMBER:	4017	4020	4023
DATE:	9/16	9/17	9/18
Ethane	41.0	22.6	25.0
Ethylene	19.0	32.8	******
Propane	34.8	17.4	37.5
Acetylene	9.4	3.2	6.2
Isobutane	12.8	7.6	18.4
n-Butane	26.0	14.0	40.4
Propylene	4.5	3.6	6.3
Isopentane	21.5	15.5	56.5
n-Pentane + Cyclopentane	18.0	5.0	160.5
Trans-2-pentene + Isoprene	0.0	******	3.1
2,2-Dimethylbutane	0.0	******	0.0
2-Methylpentane	3.9	******	8.0
3-Methylpentane	9.0	******	5.8
1-Hexene	0.0	******	0.0
n-Hexane	5.5	******	6.1
2,4-Dimethylpentane	0.1	******	0.0
2-Methylhexane	3.9	******	5.3
3-Methylhexane	2.5	******	1.1
2,2,4-Trimethylpentane	0.0	******	0.8
n-Heptane	0.0	******	0.8
Methylcyclohexane	0.0	******	******
2,3,4-Trimethylpentane	40.0	******	0.0
2-Methylheptane	8.4	******	13.7
3-Methylheptane	0.8	******	1.4
n-Octane	0.0	******	1.2
n-Nonane	0.0	******	0.0
n-Decane	0.0	******	0.0
n-Undecane	0.0	******	0.0
n-Dodecane	0.0	******	0.0
Benzene	19.6	15.2	22.8
Toluene	7.7	2.8	8.3
Ethylbenzene	1.6	0.5	136.8
p-Xylene + A-Pinene	0.8	0.0	3.3
m-Xylene	3.2	0.0	7.8
o-Xylene	1.3	0.0	3.0
B-Pinene	0.0	0.0	0.0
n-Propylbenzene	1.9	1.1	0.0
m-Ethyltoluene	0.0	0.0	0.0
1,3,5-Trimethylbenzene	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	0.0	0.0
1,2,3-Trimethylbenzene	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0
Sum of the Alkenes	23.5	36.4	9.4
Sum of the Alkanes	232.2	82.1	382.5
Sum of the Aromatics	36.1	19.6	182.0
Sum of all compounds, NMHC	301.2	141.3	580.1

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0900-1200 CDT

SAMPLE NUMBER:	1048	1050	1053	1055	1061	1065	1071
DATE:	8/26	8/31	9/2	9/3	9/8	9/11	9/16
Ethane	11.8	******	24.4	41.6	39.8	10.6	25.2
Ethylene	******	******	******	******	******	******	******
Propane	11.1	******	31.8	******	******	25.5	46.5
Acetylene	0.6	******	2.4	3.6	5.2	2.8	3.0
Isobutane	3.6	******	9.6	11.2	16.0	4.4	7.6
n-Butane	6.4	******	22.4	24.4	41.2	9.6	14.0
Propylene	1.5	******	0.0	4.8	69.6	3.0	3.9
Isopentane	0.0	******	22.0	20.5	35.0	6.5	7.0
n-Pentane + Cyclopentane	0.0	******	12.0	10.5	24.5	4.5	8.5
Trans-2-pentene + Isoprene	0.0	******	8.7	4.3	6.3	1.3	0.7
2,2-Dimethylbutane	0.0	******	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	******	******	0.9	3.1	4.0	******	******
3-Methylpentane	******	******	******	11.0	5.3	7.4	******
1-Hexene	0.0	******	0.0	0.0	0.0	0.0	0.6
n-Hexane	0.2	******	3.0	2.3	4.3	0.8	0.5
2,4-Dimethylpentane	0.0	******	0.0	0.0	0.5	0.0	0.0
2-Methylhexane	0.0	******	5.6	0.0	3.1	0.0	0.0
3-Methylhexane	0.0	******	2.2	0.0	0.2	1.6	0.9
2,2,4-Trimethylpentane	0.0	******	0.0	3.3	5.6	******	******
n-Heptane	0.0	******	0.0	0.0	0.9	0.0	0.0
Methylcyclohexane	0.0	******	0.0	******	0.7	0.0	0.0
2,3,4-Trimethylpentane	0.0	******	0.0	0.0	0.0	0.0	******
2-Methylheptane	0.0	******	2.9	2.5	******	0.0	******
3-Methylheptane	0.0	******	0.9	0.2	0.8	0.0	0.0
n-Octane	0.0	******	0.7	0.0	0.0	0.0	0.0
n-Nonane	0.0	******	0.8	0.0	0.0	0.0	0.0
n-Decane	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	0.0	0.0
Benzene	6.4	******	15.0	16.2	3.9	5.4	15.6
Toluene	3.4	******	4.2	4.5	2.4	1.4	6.3
Ethylbenzene	0.1	******	2.4	2.4	0.8	0.1	0.2
p-Xylene + A-Pinene	0.0	******	1.0	1.0	0.1	0.1	0.7
m-Xylene	0.0	******	1.0	0.8	0.1	0.1	1.3
o-Xylene	0.0	******	1.0	0.8	0.1	0.1	1.0
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	******	12.6	0.0	0.0	0.0	0.6
m-Ethyltoluene	0.0	******	5.8	0.0	0.0	0.0	0.2
1,3,5-Trimethylbenzene	0.0	******	8.5	1.0	0.0	0.0	0.0
t-Butylbenzene	0.0	******	2.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	3.6	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	******	34.2	0.9	1.0	0.0	1.5
1,2,3-Trimethylbenzene	0.0	******	31.5	1.0	0.0	0.0	0.0
n-Butylbenzene	0.0	******	77.0	1.0	0.0	0.0	0.0
Sum of the Alkenes	1.5	0.0	8.7	9.1	75.9	4.3	5.2
Sum of the Alkanes	33.1	0.0	139.2	130.6	181.9	70.9	110.2
Sum of the Aromatics	9.9	0.0	199.8	29.6	8.4	7.2	27.4
Sum of all compounds, NMHC	45.1	0.0	350.1	172.9	271.4	85.2	145.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

LIBERTY MOUNDS, TULSA
0900-1200 CDT

	SAMPLE NUMBER:	1073
	DATE:	9/17
Ethane		10.4
Ethylene		******
Propane		17.4
Acetylene		1.8
Isobutane		3.6
n-Butane		6.0
Propylene		0.0
Isopentane		5.0
n-Pentane + Cyclopentane		1.0
Trans-2-pentene + Isoprene		0.0
2,2-Dimethylbutane		0.0
2-Methylpentane		0.0
3-Methylpentane		13.8
1-Hexene		0.0
n-Hexane		0.0
2,4-Dimethylpentane		0.0
2-Methylhexane		0.0
3-Methylhexane		0.0
2,2,4-Trimethylpentane		0.0
n-Heptane		0.0
Methylcyclohexane		0.0
2,3,4-Trimethylpentane		0.0
2-Methylheptane		0.0
3-Methylheptane		0.0
n-Octane		0.0
n-Nonane		0.0
n-Decane		0.0
n-Undecane		0.0
n-Dodecane		0.0
Benzene		8.4
Toluene		0.9
Ethylbenzene		0.0
p-Xylene + A-Pinene		0.0
m-Xylene		0.0
o-Xylene		0.0
B-Pinene		0.0
n-Propylbenzene		0.0
m-Ethyltoluene		0.0
1,3,5-Trimethylbenzene		0.0
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		0.0
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		0.0
Sum of the Alkanes		57.2
Sum of the Aromatics		9.3
Sum of all compounds, NMHC		68.3

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0900-1200 CDT

SAMPLE NUMBER:	2048	2050	2053	2055	2061	2066	2072
DATE:	8/26	8/31	9/2	9/3	9/8	9/11	9/16
Ethane	13.8	******	14.6	21.6	12.0	9.4	23.8
Ethylene	7.4	******	9.0	20.4	9.4	9.4	28.0
Propane	13.2	******	12.3	22.8	11.1	6.9	20.4
Acetylene	0.4	******	6.6	6.6	6.8	6.2	23.4
Isobutane	7.2	******	8.8	11.2	5.6	3.2	12.8
n-Butane	15.2	******	21.6	25.2	16.4	7.2	36.8
Propylene	3.9	******	4.0	1.8	2.8	3.0	12.6
Isopentane	13.0	******	25.0	21.0	15.6	8.5	41.0
n-Pentane + Cyclopentane	7.0	******	12.5	12.0	7.5	2.5	37.5
Trans-2-pentene + Isoprene	2.4	******	2.6	2.8	2.7	0.7	2.0
2,2-Dimethylbutane	******	******	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	******	******	0.6	2.1	3.4	1.4	9.3
3-Methylpentane	******	******	0.0	21.7	18.4	15.5	20.3
1-Hexene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.7	******	3.2	1.8	3.1	0.7	10.9
2,4-Dimethylpentane	0.0	******	0.0	0.0	0.0	0.0	1.7
2-Methylhexane	0.2	******	1.7	0.2	1.7	1.2	10.6
3-Methylhexane	0.2	******	1.0	0.5	0.1	2.4	23.9
2,2,4-Trimethylpentane	******	******	0.0	0.0	******	3.5	7.6
n-Heptane	******	******	0.0	1.1	******	0.0	4.0
Methylcyclohexane	******	******	0.0	1.1	******	0.0	3.5
2,3,4-Trimethylpentane	0.0	******	0.0	0.0	0.0	0.0	1.0
2-Methylheptane	2.0	******	1.6	0.0	******	2.9	26.8
3-Methylheptane	0.1	******	0.0	0.0	******	0.0	4.5
n-Octane	0.0	******	1.0	0.0	1.4	0.1	6.2
n-Nonane	0.0	******	0.1	0.0	0.1	0.1	0.4
n-Decane	0.0	******	0.0	0.0	0.0	0.0	0.1
n-Undecane	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	0.0	0.0
Benzene	0.7	******	16.1	31.8	12.3	13.2	37.8
Toluene	5.2	******	6.7	4.2	4.0	4.2	21.0
Ethylbenzene	0.0	******	2.1	0.8	0.5	1.6	4.5
p-Xylene + A-Pinene	0.0	******	0.8	0.0	0.2	1.2	2.8
m-Xylene	0.0	******	2.2	1.6	0.9	3.7	7.2
o-Xylene	0.0	******	0.8	1.2	0.6	2.9	2.9
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	1.5	******	8.9	0.0	0.0	1.0	0.2
m-Ethyltoluene	3.4	******	9.9	0.0	0.0	0.3	0.9
1,3,5-Trimethylbenzene	0.2	******	14.1	0.0	0.0	0.5	1.0
t-Butylbenzene	0.0	******	27.4	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	15.1	0.0	0.0	0.0	0.5
1,2,4-Trimethylbenzene	16.0	******	47.1	0.9	0.0	6.8	12.2
1,2,3-Trimethylbenzene	0.0	******	35.7	1.0	0.0	0.0	0.3
n-Butylbenzene	0.0	******	35.8	1.0	0.0	0.0	0.0
Sum of the Alkenes	13.7	0.0	15.6	25.0	14.9	13.1	42.6
Sum of the Alkanes	72.6	0.0	104.0	142.3	96.4	65.5	303.1
Sum of the Aromatics	27.0	0.0	222.7	42.5	18.5	35.4	91.3
Sum of all compounds, NMHC	113.7	0.0	348.9	216.4	136.6	120.2	460.4

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
0900-1200 CDT

	SAMPLE NUMBER:	2079
	DATE:	9/17
Ethane		13.0
Ethylene		9.6
Propane		12.3
Acetylene		3.2
Isobutane		5.2
n-Butane		10.8
Propylene		1.8
Isopentane		8.5
n-Pentane + Cyclopentane		2.0
Trans-2-pentene + Isoprene		3.7
2,2-Dimethylbutane		0.0
2-Methylpentane		******
3-Methylpentane		******
1-Hexene		0.0
n-Hexane		0.4
2,4-Dimethylpentane		0.0
2-Methylhexane		0.1
3-Methylhexane		0.1
2,2,4-Trimethylpentane		11.1
n-Heptane		8.1
Methylcyclohexane		0.0
2,3,4-Trimethylpentene		0.0
2-Methylheptane		0.9
3-Methylheptane		0.1
n-Octane		0.0
n-Nonane		0.0
n-Decane		0.0
n-Undecane		0.0
n-Dodecane		0.0
Benzene		8.3
Toluene		1.8
Ethylbenzene		0.4
p-Xylene + A-Pinene		0.0
m-Xylene		0.0
o-Xylene		0.0
B-Pinene		0.0
n-Propylbenzene		0.5
m-Ethyltoluene		0.1
1,3,5-Trimethylbenzene		0.0
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		0.0
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		15.1
Sum of the Alkanes		72.6
Sum of the Aromatics		11.1
Sum of all compounds, NMHC		102.0

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0900-1200 CDT

SAMPLE NUMBER:	3048	3050	3053	3055	3061	3066	3072
DATE:	8/26	8/31	9/2	9/3	9/8	9/11	9/16
Ethane	53.2	******	68.6	61.4	21.0	13.8	34.2
Ethylene	42.6	******	47.4	41.8	28.2	34.0	51.4
Propane	56.6	******	104.4	83.4	24.9	11.4	39.0
Acetylene	63.8	******	14.6	8.2	10.8	8.4	34.6
Isobutane	26.4	******	107.6	44.4	20.0	9.2	37.2
n-Butane	72.0	******	218.8	146.4	54.0	19.2	78.8
Propylene	6.6	******	19.2	10.8	6.3	4.8	16.8
Isopentane	55.0	******	207.0	104.0	53.5	23.5	92.0
n-Pentane + Cyclopentane	30.0	******	78.0	77.0	32.5	12.5	45.0
Trans-2-pentene + Isoprene	3.0	******	17.3	4.0	5.0	1.3	7.8
2,2-Dimethylbutane	0.0	******	6.7	0.0	0.0	0.0	1.7
2-Methylpentane	5.2	******	32.1	11.4	19.8	2.6	29.1
3-Methylpentane	4.4	******	41.5	22.0	24.6	4.0	19.5
1-Hexene	0.0	******	8.9	0.0	0.0	0.0	0.2
n-Hexane	6.2	******	21.8	12.9	15.2	2.2	16.4
2,4-Dimethylpentane	0.0	******	5.8	0.0	1.1	0.3	3.9
2-Methylhexane	1.3	******	13.1	0.0	7.0	2.2	16.3
3-Methylhexane	1.4	******	5.1	1.4	2.1	2.1	7.9
2,2,4-Trimethylpentane	3.2	******	21.5	8.8	2.7	1.4	8.7
n-Heptane	0.7	******	5.2	0.0	2.6	0.2	6.9
Methylcyclohexane	******	******	2.2	0.0	0.6	0.2	3.8
2,3,4-Trimethylpentane	0.0	******	0.0	0.0	******	0.0	2.6
2-Methylheptane	4.2	******	0.0	0.0	21.1	4.5	41.9
3-Methylheptane	0.8	******	4.8	0.1	5.5	0.3	6.2
n-Octane	0.8	******	4.6	0.9	2.4	0.4	5.6
n-Nonane	0.5	******	1.8	0.3	1.1	0.1	1.1
n-Decane	0.0	******	0.0	0.0	0.2	0.0	0.5
n-Undecane	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	0.0	0.0
Benzene	7.4	******	47.5	22.2	11.1	8.0	28.8
Toluene	4.2	******	28.0	9.8	10.6	4.7	29.4
Ethylbenzene	0.0	******	5.2	3.2	1.6	1.5	5.9
p-Xylene + A-Pinene	0.0	******	2.7	0.8	1.3	0.7	4.2
m-Xylene	0.0	******	8.8	4.0	3.0	1.9	11.2
o-Xylene	0.0	******	5.0	2.0	1.4	1.3	6.3
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	******	4.2	1.0	1.0	0.3	0.7
m-Ethyltoluene	0.0	******	5.3	0.0	0.5	0.1	4.2
1,3,5-Trimethylbenzene	0.0	******	3.6	0.0	0.3	0.2	2.7
t-Butylbenzene	0.0	******	4.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	4.0	0.0	0.5	0.0	0.4
1,2,4-Trimethylbenzene	0.0	******	9.0	1.0	11.7	1.2	12.6
1,2,3-Trimethylbenzene	0.0	******	9.0	1.0	0.9	0.0	0.0
n-Butylbenzene	0.0	******	5.0	3.0	0.0	0.0	0.0
Sum of the Alkenes	52.2	0.0	92.8	56.6	39.5	40.1	76.2
Sum of the Alkanes	301.9	0.0	950.6	574.4	311.9	110.1	498.5
Sum of the Aromatics	11.6	0.0	141.3	48.0	43.9	19.9	106.4
Sum of all compounds, NMHC	429.5	0.0	1199.3	687.2	406.1	178.5	715.7

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
0900-1200 CDT

	SAMPLE NUMBER:	3074
	DATE:	9/17
Ethane		23.0
Ethylene		32.8
Propane		32.4
Acetylene		5.2
Isobutane		23.6
n-Butane		64.4
Propylene		6.0
Isopentane		43.5
n-Pentane + Cyclopentane		40.0
Trans-2-pentene + Isoprene		1.9
2,2-Dimethylbutane		0.0
2-Methylpentane		4.8
3-Methylpentane		9.9
1-Hexene		0.0
n-Hexane		14.4
2,4-Dimethylpentane		0.0
2-Methylhexane		3.7
3-Methylhexane		3.5
2,2,4-Trimethylpentane		1.6
n-Heptane		10.1
Methylcyclohexane		4.2
2,3,4-Trimethylpentane		0.0
2-Methylheptane		6.3
3-Methylheptane		1.1
n-Octane		3.7
n-Nonane		0.6
n-Decane		0.1
n-Undecane		0.0
n-Dodecane		0.0
Benzene		13.0
Toluene		9.7
Ethylbenzene		1.4
p-Xylene + A-Pinene		0.5
m-Xylene		1.0
o-Xylene		0.6
B-Pinene		0.0
n-Propylbenzene		0.9
m-Ethyltoluene		0.2
1,3,5-Trimethylbenzene		0.0
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		0.0
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		40.7
Sum of the Alkanes		290.9
Sum of the Aromatics		27.3
Sum of all compounds, NMHC		364.1

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

SPERRY, TULSA
0900-1200 CDT

SAMPLE NUMBER:	4001	4004	4006	4009	4012	4015	4018
DATE:	8/26	8/31	9/2	9/3	9/8	9/11	9/16
Ethane	24.6	******	33.8	103.0	48.0	14.8	30.0
Ethylene	7.0	******	******	17.6	******	6.8	13.2
Propane	34.8	******	34.2	97.2	50.7	12.0	29.4
Acetylene	4.4	******	9.0	17.4	18.6	3.9	5.6
Isobutane	20.8	******	22.4	57.6	26.4	4.8	12.8
n-Butane	44.8	******	56.8	131.2	60.8	8.6	22.0
Propylene	5.4	******	5.1	10.2	7.7	2.4	2.4
Isopentane	37.0	******	46.0	109.0	100.5	7.8	16.0
n-Pentane + Cyclopentane	26.5	******	33.5	83.0	356.0	4.6	10.5
Trans-2-pentene + Isoprene	4.7	******	5.2	5.6	******	4.1	0.4
2,2-Dimethylbutane	0.0	******	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	6.0	******	10.4	12.6	9.0	******	2.1
3-Methylpentane	14.5	******	6.5	24.4	25.5	******	1.8
1-Hexene	0.5	******	0.3	0.0	0.0	0.0	0.0
n-Hexane	8.4	******	12.5	13.0	14.6	0.7	2.9
2,4-Dimethylpentane	0.4	******	0.5	1.0	1.3	0.0	0.0
2-Methylhexane	3.7	******	8.4	7.8	10.3	0.0	1.5
3-Methylhexane	1.4	******	2.8	2.1	3.5	0.0	0.8
2,2,4-Trimethylpentane	3.6	******	6.4	9.1	6.8	0.0	0.8
n-Heptane	1.6	******	1.4	2.8	5.6	0.0	0.0
Methylcyclohexane	0.0	******	0.0	3.5	0.7	0.0	0.8
2,3,4-Trimethylpentane	0.0	******	0.0	3.4	0.0	0.0	0.8
2-Methylheptane	11.4	******	13.2	20.6	27.5	0.6	0.8
3-Methylheptane	1.6	******	2.4	3.5	4.0	0.0	0.3
n-Octane	1.6	******	2.7	1.6	3.5	0.0	0.0
n-Nonane	0.2	******	0.0	0.5	0.6	0.0	0.0
n-Decane	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	0.0	0.0
Benzene	21.9	******	******	32.9	27.2	18.6	11.7
Toluene	8.0	******	******	19.6	23.1	2.1	4.1
Ethylbenzene	1.2	******	******	3.7	73.6	1.0	0.8
p-Xylene + A-Pinene	0.4	******	******	1.5	3.8	0.2	0.5
m-Xylene	1.3	******	******	5.6	10.4	0.1	1.1
o-Xylene	1.1	******	******	3.0	4.8	0.4	0.4
B-Pinene	0.0	******	******	0.0	0.0	0.0	0.0
n-Propylbenzene	0.8	******	******	0.5	4.9	0.0	0.0
m-Ethyltoluene	0.5	******	******	0.7	0.7	0.0	0.0
1,3,5-Trimethylbenzene	0.7	******	******	0.5	1.7	0.1	0.0
t-Butylbenzene	0.0	******	******	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	******	0.4	0.5	0.0	0.0
1,2,4-Trimethylbenzene	5.0	******	******	15.4	4.3	1.2	0.0
1,2,3-Trimethylbenzene	1.0	******	******	1.8	0.3	0.0	0.0
n-Butylbenzene	1.0	******	******	18.4	0.0	0.0	0.0
Sum of the Alkenes	17.6	0.0	10.6	33.8	7.7	13.3	16.0
Sum of the Alkanes	242.9	0.0	293.9	686.9	755.3	53.9	131.7
Sum of the Aromatics	42.9	0.0	0.0	104.0	155.3	23.7	18.6
Sum of all compounds, NMHC	307.8	0.0	313.5	841.7	936.9	94.8	171.9

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

SPERRY, TULSA
0900-1200 CDT

	SAMPLE NUMBER:	8021
	DATE:	9/17
Ethane		21.4
Ethylene		53.6
Propane		29.4
Acetylene		7.2
Isobutane		18.0
n-Butane		43.6
Propylene		6.0
Isopentane		35.5
n-Pentane + Cyclopentane		27.5
Trans-2-pentene + Isoprene		1.4
2,2-Dimethylbutane		0.0
2-Methylpentane		4.0
3-Methylpentane		3.5
1-Hexene		0.0
n-Hexane		4.6
2,4-Dimethylpentane		0.3
2-Methylhexane		4.2
3-Methylhexane		3.9
2,2,4-Trimethylpentane		1.1
n-Heptane		1.2
Methylcyclohexane		0.0
2,3,4-Trimethylpentane		0.0
2-Methylheptane		4.6
3-Methylheptane		1.8
n-Octane		1.4
n-Nonane		0.2
n-Decane		0.0
n-Undecane		0.0
n-Dodecane		0.0
Benzene		20.4
Toluene		8.4
Ethylbenzene		1.4
p-Xylene + A-Pinene		0.7
m-Xylene		2.1
o-Xylene		1.6
B-Pinene		0.0
n-Propylbenzene		2.1
m-Ethyltoluene		2.7
1,3,5-Trimethylbenzene		1.1
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		10.5
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		61.0
Sum of the Alkanes		206.2
Sum of the Aromatics		51.0
Sum of all compounds, NMHC		325.4

****** = INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

PUBLIC HEALTH, TULSA
1400-1700 CDT

	SAMPLE NUMBER:	2062
	DATE:	9/ 8
Ethane		6.6
Ethylene		4.4
Propane		7.2
Acetylene		2.2
Isobutane		4.8
n-Butane		12.2
Propylene		0.0
Isopentane		12.5
n-Pentane + Cyclopentane		6.5
Trans-2-pentene + Isoprene		0.7
2,2-Dimethylbutane		0.0
2-Methylpentane		1.7
3-Methylpentane		17.2
1-Hexene		0.0
n-Hexane		1.1
2,4-Dimethylpentane		0.0
2-Methylhexane		0.5
3-Methylhexane		0.5
2,2,4-Trimethylpentane		0.9
n-Heptane		0.0
Methylcyclohexane		0.0
2,3,4-Trimethylpentane		0.0
2-Methylheptane		2.2
3-Methylheptane		0.0
n-Octane		0.4
n-Nonane		0.1
n-Decane		0.0
n-Undecane		0.0
n-Dodecane		0.0
Benzene		2.3
Toluene		2.4
Ethylbenzene		0.1
p-Xylene + A-Pinene		0.1
m-Xylene		0.1
o-Xylene		0.1
B-Pinene		0.0
n-Propylbenzene		0.9
m-Ethyltoluene		0.0
1,3,5-Trimethylbenzene		0.0
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		2.0
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		5.1
Sum of the Alkanes		74.4
Sum of the Aromatics		8.0
Sum of all compounds, NMHC		89.7

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

POST OFFICE, TULSA
1400-1700 CDT

	SAMPLE NUMBER:	3062
	DATE:	9/ 8
Ethane		15.0
Ethylene		34.6
Propane		17.1
Acetylene		8.4
Isobutane		19.6
n-Butane		46.0
Propylene		4.8
Isopentane		51.0
n-Pentane + Cyclopentane		28.0
Trans-2-pentene + Isoprene		
2,2-Dimethylbutane		
2-Methylpentane		.4
3-Methylpentane		.3
1-Hexene		0.0
n-Hexane		3.9
2,4-Dimethylpentane		0.5
2-Methylhexane		******
3-Methylhexane		******
2,2,4-Trimethylpentane		0.0
n-Heptane		0.0
Methylcyclohexane		0.2
2,3,4-Trimethylpentane		1.0
2-Methylheptane		10.0
3-Methylheptane		0.2
n-Octane		0.2
n-Nonane		0.3
n-Decane		0.0
n-Undecane		0.0
n-Dodecane		0.0
Benzene		16.4
Toluene		12.8
Ethylbenzene		2.0
p-Xylene + A-Pinene		1.2
m-Xylene		3.0
o-Xylene		1.7
B-Pinene		0.0
n-Propylbenzene		0.0
m-Ethyltoluene		0.3
1,3,5-Trimethylbenzene		0.5
t-Butylbenzene		0.0
o-Ethyltoluene		0.0
1,2,4-Trimethylbenzene		2.8
1,2,3-Trimethylbenzene		0.0
n-Butylbenzene		0.0
Sum of the Alkenes		42.8
Sum of the Alkanes		199.7
Sum of the Aromatics		40.7
Sum of all compounds, NMHC		291.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

SPERRY, TULSA
1400-1700 CDT

SAMPLE NUMBER:	4002	4007	4010	4013	4019	4022
DATE:	6/26	9/2	9/3	9/8	9/16	9/17
Ethane	10.8	17.6	******	18.8	11.8	14.0
Ethylene	6.5	9.6	******	45.8	4.8	******
Propane	11.2	13.8	******	21.9	13.8	23.4
Acetylene	4.5	6.4	******	12.0	5.4	3.8
Isobutane	9.6	6.8	******	16.8	15.2	8.8
n-Butane	20.0	15.6	******	40.0	38.0	22.4
Propylene	4.5	3.6	******	4.2	0.0	3.9
Isopentane	20.0	23.5	******	35.5	36.5	18.5
n-Pentane + Cyclopentane	9.5	9.0	******	27.5	24.5	22.5
Trans-2-pentene + Isoprene	6.3	2.0	******	******	1.6	1.8
2,2-Dimethylbutane	0.0	0.0	******	******	22.2	0.0
2-Methylpentane	5.4	3.2	******	******	5.0	0.3
3-Methylpentane	19.0	7.8	******	******	3.2	0.9
1-Hexene	0.0	0.0	******	******	0.0	0.0
n-Hexane	3.6	2.4	******	******	4.9	1.9
2,4-Dimethylpentane	1.2	0.3	******	******	0.0	0.0
2-Methylhexane	1.6	1.4	******	******	2.7	3.3
3-Methylhexane	1.4	0.7	******	******	0.5	12.2
2,2,4-Trimethylpentane	******	3.2	******	******	0.0	0.0
n-Heptane	0.8	0.8	******	******	0.0	0.0
Methylcyclohexane	******	1.0	******	******	0.0	0.0
2,3,4-Trimethylpentane	0.0	0.0	******	******	0.0	0.0
2-Methylheptane	3.4	3.9	******	******	6.6	3.0
3-Methylheptane	0.8	0.2	******	******	0.4	0.2
n-Octane	0.8	0.4	******	******	0.0	0.2
n-Nonane	0.1	0.1	******	******	0.0	0.1
n-Decane	0.0	0.0	******	******	0.0	0.0
n-Undecane	0.0	0.0	******	******	0.0	0.0
n-Dodecane	0.0	0.0	******	******	0.0	0.0
Benzene	34.2	35.4	******	12.0	12.2	15.6
Toluene	4.2	4.9	******	12.6	5.3	5.6
Ethylbenzene	1.0	0.2	******	0.5	0.9	1.6
p-Xylene + A-Pinene	0.3	0.2	******	0.2	0.5	0.8
m-Xylene	1.0	0.1	******	0.7	1.7	1.0
o-Xylene	0.9	0.1	******	0.3	0.7	0.9
B-Pinene	0.0	0.0	******	0.0	0.0	0.0
n-Propylbenzene	0.5	0.0	******	0.0	0.0	2.5
m-Ethyltoluene	0.5	0.1	******	0.0	0.0	0.2
1,3,5-Trimethylbenzene	0.5	0.1	******	0.0	0.0	0.1
t-Butylbenzene	0.0	0.0	******	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	******	0.0	0.0	0.0
1,2,4-Trimethylbenzene	4.7	0.1	******	0.0	0.0	19.8
1,2,3-Trimethylbenzene	0.3	0.0	******	0.0	0.0	0.0
n-Butylbenzene	1.3	0.0	******	0.0	0.0	0.0
Sum of the Alkenes	17.3	15.2	0.0	50.8	6.4	5.7
Sum of the Alkanes	119.2	111.7	0.0	160.5	185.3	131.7
Sum of the Aromatics	49.4	41.2	0.0	26.3	21.3	48.1
Sum of all compounds, NMHC	190.4	174.5	0.0	248.8	218.4	189.3

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

VERA, TULSA
1400-1700 CDT

SAMPLE NUMBER:	5000	5001	5002	5003	5004	5005	5006
DATE:	8/26	8/31	9/2	9/3	9/8	9/16	9/17
Ethane	12.6	******	9.0	14.4	11.2	9.0	11.2
Ethylene	******	******	******	******	******	******	******
Propane	13.5	******	59.4	26.1	11.4	16.2	10.5
Acetylene	1.8	******	2.4	5.2	3.2	1.8	1.8
Isobutane	3.2	******	4.0	9.2	3.2	2.7	3.6
n-Butane	7.2	******	9.2	21.2	7.2	5.3	7.6
Propylene	4.8	******	3.3	0.0	3.0	0.0	2.4
Isopentane	1.6	******	4.0	23.0	4.5	2.4	7.0
n-Pentane + Cyclopentane	0.7	******	15.0	20.0	2.5	1.7	4.0
Trans-2-pentene + Isoprene	******	******	2.8	3.2	0.7	0.7	1.0
2,2-Dimethylbutane	******	******	0.0	0.0	0.0	0.0	******
2-Methylpentane	******	******	******	******	******	******	******
3-Methylpentane	******	******	******	******	******	******	******
1-Hexene	******	******	0.0	0.0	0.0	0.0	******
n-Hexane	******	******	0.2	1.2	0.0	0.0	******
2,4-Dimethylpentane	******	******	0.0	0.0	0.0	0.0	******
2-Methylhexane	******	******	0.7	0.3	0.0	0.0	******
3-Methylhexane	******	******	0.0	0.3	0.0	0.0	******
2,2,4-Trimethylpentane	******	******	0.0	1.6	0.0	0.0	******
n-Heptane	******	******	0.0	0.5	0.0	0.0	******
Methylcyclohexane	******	******	0.0	0.0	0.0	0.0	******
2,3,4-Trimethylpentane	******	******	0.0	0.0	0.0	0.0	******
2-Methylheptane	******	******	0.0	1.0	0.0	0.0	******
3-Methylheptane	******	******	0.0	0.0	0.0	0.0	******
n-Octane	******	******	0.0	0.0	0.0	0.0	******
n-Nonane	******	******	0.0	0.0	0.0	0.0	******
n-Decane	******	******	0.0	0.0	0.0	0.0	******
n-Undecane	******	******	0.0	0.0	0.0	0.0	******
n-Dodecane	******	******	0.0	0.0	0.0	0.0	******
Benzene	6.2	******	34.2	14.4	2.3	9.0	57.2
Toluene	12.6	******	4.2	6.3	1.8	4.2	5.0
Ethylbenzene	2.4	******	0.2	0.3	0.6	5.0	0.1
p-Xylene + A-Pinene	0.6	******	0.2	0.2	0.1	1.6	0.2
m-Xylene	2.7	******	0.1	0.2	0.1	1.5	0.2
o-Xylene	1.6	******	0.2	0.2	0.1	1.8	0.2
B-Pinene	0.0	******	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	1.2	******	0.1	0.1	0.7	6.1	0.8
m-Ethyltoluene	0.2	******	0.2	0.1	0.2	1.1	0.2
1,3,5-Trimethylbenzene	0.2	******	0.1	0.1	0.0	0.9	0.2
t-Butylbenzene	0.0	******	0.2	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	0.0	0.0	0.0	1.6	0.0
1,2,4-Trimethylbenzene	18.9	******	0.1	0.2	4.0	2.8	0.1
1,2,3-Trimethylbenzene	0.8	******	0.1	0.2	0.0	1.1	0.0
n-Butylbenzene	0.0	******	0.0	0.3	0.0	0.5	0.0
Sum of the Alkenes	4.8	0.0	6.1	3.2	3.7	0.7	3.4
Sum of the Alkanes	36.8	0.0	101.5	118.8	40.0	37.3	43.9
Sum of the Aromatics	47.4	0.0	39.9	22.6	9.9	37.2	64.2
Sum of all compounds, NMHC	92.8	0.0	149.9	149.8	56.8	77.0	113.3

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

OCHELATA, TULSA
1400-1700 CDT

SAMPLE NUMBER:	6000	6001	6002	6003	6004	6005
DATE:	8/26	8/31	9/2	9/3	9/16	9/17
Ethane	11.4	******	9.2	9.8	12.6	13.2
Ethylene	******	******	15.4	3.8	14.4	2.4
Propane	10.2	******	10.2	9.9	15.9	13.2
Acetylene	1.8	******	1.2	1.0	2.2	1.3
Isobutane	3.6	******	5.2	4.0	8.0	5.6
n-Butane	7.6	******	10.8	8.4	18.0	12.0
Propylene	2.4	******	0.6	3.6	0.6	2.9
Isopentane	6.0	******	7.5	7.0	15.0	7.0
n-Pentane + Cyclopentane	6.5	******	2.0	4.5	7.0	1.8
Trans-2-pentene + Isoprene	7.2	******	1.1	0.9	0.6	0.5
2,2-Dimethylbutane	0.0	******	0.0	0.0	0.0	******
2-Methylpentane	******	******	******	******	******	0.0
3-Methylpentane	******	******	******	6.8	******	6.0
1-Hexene	0.0	******	******	0.0	0.0	0.0
n-Hexane	0.5	******	0.9	1.4	0.0	0.0
2,4-Dimethylpentane	******	******	******	0.0	0.0	0.0
2-Methylhexane	0.8	******	0.0	0.0	0.0	******
3-Methylhexane	1.7	******	0.0	0.3	0.0	******
2,2,4-Trimethylpentane	******	******	0.0	3.2	******	0.0
n-Heptane	******	******	0.0	0.0	******	0.0
Methylcyclohexane	******	******	0.0	******	0.0	0.0
2,3,4-Trimethylpentane	******	******	0.0	0.0	0.0	0.0
2-Methylheptane	******	******	2.5	0.0	1.6	0.0
3-Methylheptane	0.0	******	0.0	0.0	0.0	0.0
n-Octane	0.0	******	0.0	0.0	0.0	0.0
n-Nonane	0.2	******	0.0	0.0	0.0	0.0
n-Decane	0.0	******	0.0	0.0	0.0	0.0
n-Undecane	0.0	******	0.0	0.0	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	0.0	0.0
Benzene	3.7	******	15.0	12.7	12.6	12.6
Toluene	2.1	******	2.8	3.3	3.5	2.1
Ethylbenzene	0.5	******	0.7	2.0	2.4	0.0
p-Xylene + A-Pinene	0.3	******	0.1	0.1	0.0	0.0
m-Xylene	0.3	******	0.1	0.2	0.0	0.0
o-Xylene	0.3	******	0.1	0.2	0.8	0.0
B-Pinene	0.0	******	0.0	0.0	0.0	0.0
n-Propylbenzene	0.5	******	0.0	1.7	0.0	0.0
m-Ethyltoluene	0.3	******	4.1	0.2	0.0	0.0
1,3,5-Trimethylbenzene	0.0	******	6.9	0.0	0.0	0.0
t-Butylbenzene	0.0	******	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	0.5	0.0	0.0	0.0
1,2,4-Trimethylbenzene	4.4	******	17.1	18.3	18.0	0.0
1,2,3-Trimethylbenzene	0.5	******	18.0	1.8	0.0	0.0
n-Butylbenzene	0.5	******	17.0	1.9	0.0	0.0
Sum of the Alkenes	9.6	0.0	17.1	8.3	15.6	5.8
Sum of the Alkanes	48.5	0.0	48.3	55.3	78.1	58.8
Sum of the Aromatics	13.4	0.0	82.4	42.4	45.3	14.7
Sum of all compounds, NMHC	73.3	0.0	149.0	107.0	141.2	80.6

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

SKIATOOK, TULSA
1400-1700 CDT

SAMPLE NUMBER:	7000	7001	7002	7003	7004	7005
DATE:	8/26	9/2	9/3	9/8	9/16	9/17
Ethane	10.0	8.4	10.6	10.2	11.6	10.4
Ethylene	******	******	******	******	******	******
Propane	9.0	9.6	12.3	9.9	10.5	9.0
Acetylene	1.0	1.0	1.0	0.8	0.5	0.5
Isobutane	3.0	5.2	4.0	2.4	4.0	2.0
n-Butane	5.6	9.6	7.6	5.2	6.4	4.8
Propylene	0.0	2.4	16.2	0.0	0.0	0.8
Isopentane	0.0	3.5	1.5	0.0	0.0	1.5
n-Pentane + Cyclopentane	0.0	1.0	1.0	0.0	0.0	0.0
Trans-2-pentene + Isoprene	0.0	4.5	1.7	******	0.3	0.0
2,2-Dimethylbutane	0.0	0.0	0.0	******	0.0	0.0
2-Methylpentane	******	******	******	******	******	******
3-Methylpentane	******	******	******	******	******	******
1-Hexene	0.0	26.4	******	******	0.0	0.0
n-Hexane	0.0	0.8	6.0	******	0.0	0.0
2,4-Dimethylpentane	0.0	0.0	0.0	******	0.0	0.0
2-Methylhexane	0.0	0.1	0.0	******	0.0	0.0
3-Methylhexane	0.0	0.1	0.0	******	1.4	0.0
2,2,4-Trimethylpentane	0.0	2.9	******	******	0.0	0.0
n-Heptane	0.0	0.1	1.9	******	0.0	0.0
Methylcyclohexane	0.0	******	1.0	******	******	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	0.0	0.0
2-Methylheptane	0.0	1.3	0.0	******	0.0	0.0
3-Methylheptane	0.0	0.0	0.8	******	0.0	0.0
n-Octane	0.0	0.0	4.8	******	0.0	0.0
n-Nonane	0.0	0.0	0.0	******	0.0	0.0
n-Decane	0.0	0.0	0.0	******	0.0	0.0
n-Undecane	0.0	0.0	0.0	******	0.0	0.0
n-Dodecane	0.0	0.0	0.0	******	0.0	0.0
Benzene	0.8	11.4	33.6	1.5	0.0	5.6
Toluene	0.7	2.1	1.6	0.6	0.4	6.5
Ethylbenzene	0.3	1.6	0.5	0.0	0.0	0.0
p-Xylene + A-Pinene	0.0	0.1	0.1	0.0	0.0	0.0
m-Xylene	0.0	0.1	0.1	0.0	0.0	0.0
o-Xylene	0.0	0.1	0.4	0.0	0.0	0.0
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.3	12.6	3.6	0.0	0.0	0.0
m-Ethyltoluene	0.3	7.8	0.0	0.0	0.0	0.0
1,3,5-Trimethylbenzene	0.2	5.4	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	1.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.7	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	4.8	21.6	0.0	0.0	0.0	0.0
1,2,3-Trimethylbenzene	0.9	23.4	0.0	0.0	0.0	0.0
n-Butylbenzene	1.0	21.0	10.6	0.0	0.0	0.0
Sum of the Alkenes	0.0	33.3	17.9	0.0	0.3	0.8
Sum of the Alkanes	27.6	42.6	51.5	27.7	33.9	27.7
Sum of the Aromatics	9.3	108.9	50.5	2.1	0.4	12.1
Sum of all compounds, NMHC	37.9	185.8	120.9	30.6	35.1	41.1

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA - 1977
ALL VALUES IN PPBC

WYNONA, TULSA
1400-1700 CDT

SAMPLE NUMBER:	8000	8001	8002	8003	8004
DATE:	8/26	9/2	9/3	9/16	9/17
Ethane	12.6	11.6	13.8	12.0	13.2
Ethylene	3.6	3.8	6.6	4.0	2.0
Propane	14.1	12.0	16.8	11.4	14.7
Acetylene	1.0	0.4	2.0	0.6	0.8
Isobutane	3.6	2.8	4.8	3.6	3.2
n-Butane	8.4	6.0	9.2	5.6	7.6
Propylene	0.5	0.0	0.0	0.0	0.0
Isopentane	1.0	0.0	4.0	0.0	2.0
n-Pentane + Cyclopentane	1.0	0.0	0.0	0.0	2.0
Trans-2-pentene + Isoprene	******	2.5	3.7	1.0	1.5
2,2-Dimethylbutane	******	0.0	0.0	0.0	0.0
2-Methylpentane	******	******	******	0.0	0.0
3-Methylpentane	******	******	******	0.0	10.8
1-Hexene	******	0.0	0.0	0.0	0.0
n-Hexane	******	0.7	0.6	0.0	0.0
2,4-Dimethylpentane	******	0.0	0.2	0.0	0.0
2-Methylhexane	******	0.1	0.0	0.0	0.0
3-Methylhexane	******	0.4	0.0	0.0	0.0
2,2,4-Trimethylpentane	******	0.0	******	0.0	******
n-Heptane	******	******	******	0.0	0.0
Methylcyclohexane	******	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane	******	0.0	0.0	0.0	0.0
2-Methylheptane	******	0.0	0.0	0.0	0.0
3-Methylheptane	******	0.0	0.0	0.0	0.0
n-Octane	******	0.0	1.2	0.0	0.0
n-Nonane	******	0.0	0.0	0.0	0.0
n-Decane	******	0.0	0.0	0.0	0.0
n-Undecane	******	0.0	0.0	0.0	0.0
n-Dodecane	******	******	0.0	0.0	0.0
Benzene	2.8	******	7.8	2.8	1.7
Toluene	0.8	******	4.9	2.1	0.6
Ethylbenzene	3.8	******	0.0	0.0	0.0
p-Xylene + A-Pinene	0.0	******	0.8	0.0	0.0
m-Xylene	0.0	******	1.5	0.0	0.0
o-Xylene	0.0	******	1.0	0.0	0.0
B-Pinene	0.0	******	0.0	0.0	0.0
n-Propylbenzene	0.7	******	0.0	0.5	0.0
m-Ethyltoluene	0.3	******	0.0	0.0	0.0
1,3,5-Trimethylbenzene	0.2	******	0.0	0.0	0.0
t-Butylbenzene	0.0	******	0.0	0.0	0.0
o-Ethyltoluene	0.0	******	0.0	0.0	0.0
1,2,4-Trimethylbenzene	5.6	******	11.7	0.0	0.0
1,2,3-Trimethylbenzene	0.7	******	0.0	0.0	0.0
n-Butylbenzene	0.8	******	0.0	0.0	0.0
Sum of the Alkenes	4.1	6.3	10.3	5.0	3.5
Sum of the Alkanes	40.7	33.6	50.6	32.6	53.5
Sum of the Aromatics	15.7	0.0	27.7	5.4	2.3
Sum of all compounds, NMHC	61.5	40.3	90.6	43.6	60.1

****** - INDICATES MISSING OR INVALIDATED DATA

SECTION 4.12

INDIVIDUAL HYDROCARBON SPECIES FROM AIRBORNE SAMPLES

Preceding page blank

Hydrocarbon Species Analysis by GC-FID
Airborne Sampling, Tulsa, OK 1977

Flight Number	Flight Date and Pattern	Hydrocarbon Sample Numbers
T-05	8/26/77 Transport, am	9001 - 9007
T-06	8/26/77 Stagnation, pm	9008 - 9009
T-09	9/02/77 Transport, am	9010 - 9017
T-10	9/02/77 Transport, pm	9018 - 9019
T-11	9/03/77 Transport, am	9020 - 9027
T-12	9/03/77 Transport, pm	9028 - 9029
T-15	9/08/77 Transport, pm	9030 - 9031
T-16	9/11/77 Transport, am	9032 - 9038
T-17	9/16/77 Transport, am	9039 - 9045
T-18	9/16/77 Transport, pm	9046 - 9047
T-19	9/17/77 Transport, am	9048 - 9055
T-20	9/17/77 Transport, pm	9056 - 9057

Preceding page blank

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-05	T-05	T-05	T-05	T-05	T-05	T-05
SAMPLE NUMBER:	9001	9002	9003	9004	9005	9006	9007
DATE:	8/26	8/26	8/26	8/26	8/26	8/26	8/26
TIME (CDT):	0622 20	0625 50	0631 45	0637 40	0822 05	0903 50	0909 35
LOCATION:	MOUNDS	MOUNDS	MOUNDS	MOUNDS	CBD	TIA	D. AIRPORT
ALTITUDE, FT MSL:	1200	2500	5000	7550	2500	725	775
Ethane	7.2	5.4	3.4	2.2	4.8	16.8	37.2
Ethylene	6.2	0.0	3.4	0.0	3.6	6.4	6.0
Propane	7.2	4.2	2.4	0.0	4.2	16.8	59.1
Acetylene	0.0	0.0	0.0	0.0	1.0	3.2	2.0
Isobutane	0.0	1.6	0.0	0.0	0.8	7.6	45.6
n-Butane	0.0	1.2	0.0	0.0	0.8	15.6	92.3
Propylene	0.0	0.0	0.0	0.0	0.6	3.9	9.9
Isopentane	4.0	1.5	0.0	0.0	0.0	13.5	67.5
n-Pentane + Cyclopentane	0.0	0.0	0.0	0.0	0.0	6.5	48.5
Trans-2-pentene + Isoprene	0.3	0.2	0.0	0.0	******	1.3	4.5
2,2-Dimethylbutane	0.0	******	0.0	0.0	******	0.0	0.0
2-Methylpentane	******	******	0.0	0.0	******	2.0	11.1
3-Methylpentane	******	******	0.0	0.0	******	8.9	15.7
1-Hexene	0.0	******	0.0	0.0	******	0.0	0.3
n-Hexane	0.2	******	0.0	0.0	******	1.9	13.2
2,4-Dimethylpentane	0.0	******	0.0	0.0	******	0.0	0.3
2-Methylhexane	0.1	******	0.0	0.0	******	1.3	11.0
3-Methylhexane	0.1	******	0.0	0.0	******	0.5	1.7
2,2,4-Trimethylpentane	0.8	******	0.0	0.0	******	3.5	7.9
n-Heptane	0.0	******	0.0	0.0	******	0.4	3.5
Methylcyclohexane	0.0	******	0.0	0.0	******	0.0	2.1
2,3,4-Trimethylpentane	0.0	******	0.0	0.0	******	0.0	4.8
2-Methylheptane	0.0	******	0.0	0.0	******	3.5	7.9
3-Methylheptane	0.0	******	0.0	0.0	******	0.0	2.0
n-Octane	0.0	******	0.0	0.0	******	0.0	4.0
n-Nonane	0.0	******	0.0	0.0	******	0.3	0.7
n-Decane	0.0	******	0.0	0.0	******	0.0	0.0
n-Undecane	0.0	******	0.0	0.0	******	0.0	0.0
n-Dodecane	0.0	******	0.0	0.0	******	0.0	0.0
Benzene	10.8	10.8	16.2	6.4	10.8	20.4	40.7
Toluene	0.8	0.9	8.4	1.2	3.5	4.2	8.4
Ethylbenzene	0.3	0.3	1.8	0.5	1.3	0.3	2.0
p-Xylene + A-Pinene	0.1	0.1	0.1	0.1	0.0	0.1	0.6
m-Xylene	0.1	0.1	0.1	0.1	0.0	0.1	1.4
o-Xylene	0.1	0.1	0.1	0.1	0.0	0.1	1.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.0	0.7	6.2	0.9	2.3	0.2	1.0
m-Ethyltoluene	0.0	0.5	1.8	0.3	0.3	0.2	0.5
1,3,5-Trimethylbenzene	0.0	0.7	2.1	0.7	0.4	0.0	0.0
t-Butylbenzene	0.0	1.3	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.8	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	2.8	2.7	33.3	6.3	10.7	5.9	6.3
1,2,3-Trimethylbenzene	0.3	2.7	8.1	3.2	0.9	0.0	0.3
n-Butylbenzene	0.2	4.9	12.1	3.9	1.2	0.6	0.6
Sum of the Alkenes	6.5	0.2	3.4	0.0	4.2	11.6	20.7
Sum of the Alkanes	19.6	13.9	5.8	2.2	10.6	99.1	436.1
Sum of the Aromatics	15.5	26.6	90.3	23.7	31.4	32.1	62.9
Sum of all compounds, NMHC	41.6	40.7	99.5	25.9	47.2	146.0	521.7

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-06	T-06	T-09	T-09	T-09	T-09	T-09
SAMPLE NUMBER:	9008	9009	9010	9011	9012	9013	9014
DATE:	8/26	8/26	9/2	9/2	9/2	9/2	9/2
TIME (CDT):	1439 35	1502 25	0629 00	0636 05	0643 45	0652 40	0833 05
LOCATION:	SPERRY	SPERRY	MOUNDS	MOUNDS	MOUNDS	MOUNDS	CBD
ALTITUDE, FT MSL:	2500	7500	1100	2600	5000	7600	2600
Ethane	11.6	4.6	7.6	4.6	5.0	2.4	4.2
Ethylene	26.6	1.8	20.8	6.6	3.2	6.2	1.8
Propane	12.3	2.4	8.4	2.4	3.4	2.7	2.7
Acetylene	5.0	0.4	0.0	0.0	0.0	0.0	1.0
Isobutane	16.8	0.6	7.6	0.0	0.0	0.0	0.8
n-Butane	20.4	0.6	11.2	2.8	3.2	1.2	0.0
Propylene	3.0	0.0	3.6	6.0	4.2	6.9	0.0
Isopentane	217.5	0.0	367.0	0.0	0.0	0.0	0.0
n-Pentane + Cyclopentane	2250.0	0.0	1519.5	0.0	0.0	0.0	0.0
Trans-2-pentene + Isoprene	******	0.0	******	1.0	0.0	0.0	0.0
2,2-Dimethylbutane	0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylpentane	32.6	0.0	47.1	0.0	0.0	0.0	0.0
3-Methylpentane	15.9	0.0	52.2	0.0	0.0	0.0	0.0
1-Hexene	1.2	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	4.4	0.0	5.7	0.0	0.0	0.0	0.0
2,4-Dimethylpentane	0.8	0.0	38.5	0.0	0.0	0.0	0.0
2-Methylhexane	9.6	0.0	61.6	0.0	0.0	0.0	0.0
3-Methylhexane	0.5	0.0	******	0.0	0.0	0.0	0.0
2,2,4-Trimethylpentane	4.5	0.0	104.0	0.0	0.0	0.0	0.0
n-Heptane	2.8	0.0	0.0	0.0	0.0	0.0	0.0
Methylcyclohexane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane	0.8	0.0	******	0.0	0.0	0.0	0.0
2-Methylheptane	19.6	0.0	******	0.0	0.0	0.0	0.0
3-Methylheptane	0.3	0.0	12.5	0.0	0.0	0.0	0.0
n-Octane	1.9	0.0	1.7	0.0	0.0	0.0	0.0
n-Nonane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	34.2	5.4	73.5	39.0	106.0	43.3	12.6
Toluene	20.6	3.2	185.5	2.8	0.8	2.7	1.0
Ethylbenzene	411.0	0.0	380.8	0.5	0.0	0.0	0.1
p-Xylene + A-Pinene	0.7	0.2	27.2	0.4	0.1	0.2	0.1
m-Xylene	12.6	0.5	28.8	0.5	0.1	0.5	0.1
o-Xylene	8.5	0.4	16.0	0.4	0.1	0.3	0.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	33.5	0.0	33.3	11.7	11.7	4.5	0.9
m-Ethyltoluene	1.9	0.0	11.6	0.0	1.2	1.9	0.3
1,3,5-Trimethylbenzene	0.0	0.0	4.8	6.5	1.4	6.3	0.0
t-Butylbenzene	0.0	0.0	4.3	0.0	2.2	5.2	0.5
o-Ethyltoluene	0.0	0.0	3.4	5.4	2.2	3.8	0.5
1,2,4-Trimethylbenzene	0.9	2.8	15.3	12.6	14.3	7.2	1.2
1,2,3-Trimethylbenzene	0.4	0.5	10.8	20.7	7.6	6.3	1.1
n-Butylbenzene	1.1	0.6	50.0	46.0	46.7	16.5	1.8
Sum of the Alkenes	30.8	1.8	24.4	13.6	7.4	13.1	1.8
Sum of the Alkanes	2621.5	8.2	2244.6	9.8	11.6	6.3	7.7
Sum of the Aromatics	525.4	13.6	845.3	146.5	194.4	98.7	20.3
Sum of all compounds, NMHC	3182.7	24.0	3114.3	169.9	213.4	118.1	30.8

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

	FLIGHT NUMBER:	T-09	T-09	T-09	T-10	T-10	T-11	T-11
	SAMPLE NUMBER:	9015	9016	9017	9018	9019	9020	9021
	DATE:	9/2	9/2	9/2	9/2	9/2	9/3	9/3
	TIME (CDT):	0852 00	0912 50	0917 25	1505 40	1522 25	0626 45	0631 40
	LOCATION:	CBD	TIA	D. AIRPORT	RAMONA	RAMONA	MOUNDS	MOUNDS
	ALTITUDE, FT MSL:	7500	725	775	2500	7500	1250	2500
Ethane		3.0	45.4	144.2	12.6	3.0	3.4	1.6
Ethylene		8.0	35.6	28.8	10.4	8.2	1.8	1.2
Propane		2.1	34.5	256.5	10.8	3.0	3.0	1.2
Acetylene		0.0	31.6	19.6	2.0	0.0	0.0	0.0
Isobutane		0.0	19.2	213.5	5.2	0.8	0.0	0.0
n-Butane		1.6	51.2	536.8	14.4	0.0	3.2	0.0
Propylene		7.2	17.7	33.9	0.0	6.6	0.0	0.0
Isopentane		0.0	58.5	333.5	8.5	0.0	0.0	0.0
n-Pentane + Cyclopentane		0.0	37.5	297.5	3.0	0.0	0.0	0.0
Trans-2-pentene + Isoprene		1.5	1.2	16.2	2.5	1.0	******	0.5
2,2-Dimethylbutane		0.0	0.0	******	0.0	0.0	0.0	0.0
2-Methylpentane		0.0	7.2	47.0	0.0	0.0	0.0	0.0
3-Methylpentane		0.0	43.1	72.0	0.0	0.0	0.0	0.0
1-Hexene		0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane		1.2	21.1	50.0	0.0	0.0	0.0	0.0
2,4-Dimethylpentane		0.0	3.8	5.7	0.0	0.0	0.0	0.0
2-Methylhexane		0.0	12.2	30.6	0.0	0.0	0.0	0.0
3-Methylhexane		0.0	5.9	12.8	0.0	0.0	0.0	0.0
2,2,4-Trimethylpentane		0.0	******	24.0	0.0	0.0	0.0	0.0
n-Heptane		0.0	3.5	14.7	0.0	0.0	0.0	0.0
Methylcyclohexane		0.0	0.2	11.2	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane		0.0	******	0.0	0.0	0.0	0.0	0.0
2-Methylheptane		0.0	41.9	53.2	0.0	0.0	0.0	0.0
3-Methylheptane		0.0	38.3	8.0	0.0	0.0	0.0	0.0
n-Octane		0.0	12.0	11.2	0.0	0.0	0.0	0.0
n-Nonane		0.0	2.1	1.8	0.0	0.0	0.0	0.0
n-Decane		0.0	0.4	0.1	0.0	0.0	0.0	0.0
n-Undecane		0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene		45.6	33.6	89.1	25.2	7.6	10.8	8.2
Toluene		1.2	29.4	59.7	2.1	4.1	1.4	0.8
Ethylbenzene		0.0	6.0	6.0	0.0	0.0	0.0	0.0
p-Xylene + A-Pinene		2.9	4.0	3.5	0.0	0.0	0.1	0.0
m-Xylene		3.2	9.2	8.6	0.0	4.0	0.1	0.0
o-Xylene		0.6	3.1	3.5	0.0	0.0	0.1	0.0
B-Pinene		0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene		13.5	22.9	0.7	1.0	8.9	0.1	0.1
m-Ethyltoluene		5.7	12.4	0.7	1.0	4.5	0.1	0.1
1,3,5-Trimethylbenzene		8.5	22.3	0.7	0.0	4.0	0.1	0.1
t-Butylbenzene		24.2	6.4	0.4	0.0	4.0	0.2	0.2
o-Ethyltoluene		11.2	3.5	0.4	1.0	5.0	0.1	0.1
1,2,4-Trimethylbenzene		44.4	50.2	21.6	9.4	36.2	14.9	7.2
1,2,3-Trimethylbenzene		39.4	40.2	7.2	6.0	26.4	10.8	5.4
n-Butylbenzene		55.2	41.6	17.7	16.0	74.0	47.0	13.0
Sum of the Alkenes		16.7	54.5	78.9	12.9	15.8	1.8	1.7
Sum of the Alkanes		7.9	438.0	2124.3	54.5	6.8	9.6	2.8
Sum of the Aromatics		255.6	284.8	219.8	61.7	178.7	85.8	35.2
Sum of all compounds, NMHC		280.2	808.9	2442.6	131.1	201.3	97.2	39.7

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-11	T-11	T-11	T-11	T-11	T-11	T-12
SAMPLE NUMBER:	9022	9023	9024	9025	9026	9027	9028
DATE:	9/3	9/3	9/3	9/3	9/3	9/3	9/3
TIME (CDT):	0638 55	0646 55	0823 00	0839 00	0857 45	0901 40	1513 40
LOCATION:	MOUNDS	MOUNDS	CBD	CBD	D. AIRPORT	TIA	5m E VERA
ALTITUDE, FT MSL:	5000	7700	2500	7500	775	725	2500
Ethane	3.6	2.6	2.2	2.8	49.8	20.5	10.6
Ethylene	2.6	1.0	2.0	3.2	24.4	27.1	3.4
Propane	3.0	1.5	1.5	2.4	90.9	8.7	9.3
Acetylene	0.0	0.0	0.0	0.0	10.4	10.4	2.2
Isobutane	0.0	0.0	0.5	0.0	72.4	20.4	2.0
n-Butane	0.0	0.4	0.0	0.0	236.0	14.8	7.6
Propylene	0.0	0.0	0.0	0.0	30.6	2.9	0.0
Isopentane	0.0	0.0	0.0	0.0	177.0	33.3	5.0
n-Pentane + Cyclopentane	0.0	0.0	20.0	0.0	147.5	23.0	0.0
Trans-2-pentene + Isoprene	0.0	0.0	1.4	4.6	17.4	6.1	2.0
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	0.0	0.0	0.0	1.0	38.7	5.0	0.0
3-Methylpentane	0.0	0.0	0.0	21.8	60.0	12.8	0.0
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.0	0.0	0.0	9.4	52.0	5.6	0.0
2,4-Dimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylhexene	0.0	0.0	0.0	29.6	18.8	2.3	0.0
3-Methylhexane	0.0	0.0	0.0	12.7	8.2	0.8	0.0
2,2,4-Trimethylpentane	0.0	0.0	0.0	0.0	5.2	0.0	0.0
n-Heptane	0.0	0.0	0.0	7.3	14.7	0.1	0.0
Methylcyclohexane	0.0	0.0	0.0	******	******	0.0	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	0.0	0.0	0.0	7.6	56.9	98.1	0.0
3-Methylheptane	0.0	0.0	0.0	0.1	29.1	0.6	0.0
n-Octane	0.0	0.0	0.0	2.2	11.8	0.2	0.0
n-Nonane	0.0	0.0	0.0	0.3	2.8	0.5	0.0
n-Decane	0.0	0.0	0.0	0.0	0.1	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	6.6	9.6	8.7	48.0	77.4	32.4	3.2
Toluene	0.0	0.0	0.9	78.4	74.9	15.4	1.4
Ethylbenzene	0.0	0.0	0.0	0.0	10.8	7.2	0.0
p-Xylene + A-Pinene	0.0	0.0	0.0	0.0	4.6	0.9	0.0
m-Xylene	0.0	0.0	0.0	0.0	14.0	3.7	0.0
o-Xylene	0.0	0.0	0.0	0.0	4.1	1.6	2.0
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.1	7.8	0.1	0.0	0.0	0.0	0.0
m-Ethyltoluene	0.1	1.8	0.1	0.0	0.4	0.0	0.0
1,3,5-Trimethylbenzene	0.0	3.2	0.0	0.0	0.3	0.0	0.0
t-Butylbenzene	0.0	4.0	0.1	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.1	0.1	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.1	11.7	0.0	0.1	0.3	18.9	0.0
1,2,3-Trimethylbenzene	0.1	9.9	9.9	0.1	0.0	6.2	0.0
n-Butylbenzene	0.2	10.0	0.4	6.0	5.3	19.0	0.0
Sum of the Alkenes	2.6	1.0	3.4	7.8	72.4	36.1	5.4
Sum of the Alkanes	6.6	4.5	24.2	97.2	1071.9	246.7	34.5
Sum of the Aromatics	7.2	58.1	20.3	132.6	192.1	105.3	6.6
Sum of all compounds, NMHC	16.4	63.6	47.9	237.6	1346.8	398.5	48.7

****** = INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-12	T-15	T-15	T-16	T-16	T-16	T-16
SAMPLE NUMBER:	9029	9030	9031	9032	9033	9034	9035
DATE:	9/3	9/8	9/8	9/11	9/11	9/11	9/11
TIME (CDT):	1528 10	1628 15	1642 20	0624 15	0627 35	0634 50	0642 45
LOCATION:	5m E VERA	RAMONA	RAMONA	MOUNDS	MOUNDS	MOUNDS	MOUNDS
ALTITUDE, FT MSL:	7500	2600	7550	1500	2500	5000	7500
Ethane	5.2	8.8	1.4	6.8	7.6	3.8	6.0
Ethylene	4.4	6.6	3.8	4.0	3.2	1.2	4.6
Propane	4.2	8.7	0.9	5.7	6.6	2.4	3.9
Acetylene	1.0	1.4	0.0	0.8	1.0	2.0	1.0
Isobutane	1.2	4.0	0.0	0.0	1.6	0.4	1.2
n-Butane	1.2	8.4	0.0	4.0	3.6	0.4	0.4
Propylene	0.0	3.3	2.7	2.4	0.0	0.9	0.9
Isopentane	0.0	0.0	0.0	0.0	2.0	0.5	0.0
n-Pentane + Cyclopentane	5.5	6.0	0.0	0.0	0.0	0.0	0.0
Trans-2-pentene + Isoprene	1.0	0.0	0.0	1.5	0.0	0.0	0.0
2,2-Dimethylbutane	0.0	0.0	0.0	0.1	0.0	0.0	0.0
2-Methylpentane	0.0	0.0	0.0	******	0.0	0.0	0.0
3-Methylpentane	0.0	0.0	0.0	******	0.0	0.0	0.0
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.0	0.0	0.0	4.5	0.0	0.0	0.0
2,4-Dimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylhexane	0.0	0.0	0.0	4.7	0.0	0.0	0.0
3-Methylhexane	0.0	0.0	0.0	3.3	0.0	0.0	0.0
2,2,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Heptane	0.0	0.0	0.0	0.0	14.7	0.0	0.0
Methylcyclohexane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylheptane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3-Methylheptane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Octane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Nonane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Decane	0.0	0.0	0.0	0.0	3.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	11.4	16.2	28.2	6.3	3.1	4.6	3.4
Toluene	0.7	1.2	1.2	0.4	1.2	1.2	0.1
Ethylbenzene	0.0	0.5	0.5	0.0	0.0	0.0	0.0
p-Xylene + A-Pinene	0.0	0.1	0.0	0.0	0.0	0.0	0.0
m-Xylene	0.0	0.1	0.0	0.0	0.0	0.0	0.0
o-Xylene	0.8	0.1	0.0	0.0	0.0	0.0	0.0
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.1	2.4	0.0	0.0	0.0	0.4	0.0
m-Ethyltoluene	0.1	0.3	0.5	0.0	0.0	0.3	0.0
1,3,5-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	1.6	28.2	0.0	0.0	0.0	2.0	0.0
1,2,3-Trimethylbenzene	0.1	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.3	2.9	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	5.4	9.9	6.5	7.9	3.2	2.1	5.5
Sum of the Alkanes	17.3	35.9	2.3	29.1	39.1	7.5	11.5
Sum of the Aromatics	15.2	52.0	30.4	6.7	4.3	8.5	3.5
Sum of all compounds, NMHC	38.9	99.2	39.2	44.5	47.6	20.1	21.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-16	T-16	T-16	T-17	T-17	T-17	T-17
SAMPLE NUMBER:	9036	9037	9038	9039	9040	9041	9042
DATE:	9/11	9/11	9/11	9/16	9/16	9/16	9/16
TIME (CDT):	0809 20	0823 05	0839 05	0626 00	0629 00	0636 00	0643 40
LOCATION:	CBD	CBD	TIA	MOUNDS	MOUNDS	MOUNDS	MOUNDS
ALTITUDE, FT MSL:	2500	7800	725	1500	2700	5000	7500
Ethane	17.4	7.6	7.2	15.2	12.8	6.6	8.4
Ethylene	6.0	2.4	12.2	3.8	3.2	1.0	3.4
Propane	20.1	6.3	7.2	15.9	13.5	5.7	6.3
Acetylene	1.0	0.5	2.6	0.0	2.4	0.0	1.2
Isobutane	6.8	1.2	1.2	6.0	7.2	1.6	3.2
n-Butane	10.4	1.4	2.4	8.4	8.0	2.0	2.8
Propylene	0.6	0.0	6.0	0.0	2.1	0.0	2.7
Isopentane	4.5	0.0	0.0	6.0	7.0	0.0	0.0
n-Pentane + Cyclopentane	1.0	0.0	1.5	3.5	1.0	0.0	0.0
Trans-2-pentene + Isoprene	0.0	0.0	1.2	0.2	0.0	0.0	0.0
2,2-Dimethylbutane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2-Methylpentane	0.0	******	0.6	******	******	0.0	0.0
3-Methylpentane	0.0	******	0.8	******	******	0.0	0.0
1-Hexene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Hexane	0.0	0.0	1.3	0.0	1.4	0.0	0.0
2,4-Dimethylpentane	0.0	0.0	0.7	0.0	0.0	0.0	0.0
2-Methylhexane	0.0	0.1	0.2	6.7	1.9	0.0	0.0
3-Methylhexane	0.0	0.0	1.7	5.6	0.5	0.0	0.0
2,2,4-Trimethylpentane	0.0	0.0	3.8	4.0	0.0	0.0	0.0
n-Heptane	0.0	0.2	1.0	0.5	0.0	0.0	0.0
Methylcyclohexane	0.0	0.0	2.5	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane	0.0	0.0	4.8	0.0	0.0	0.0	0.0
2-Methylheptane	0.0	0.0	4.8	0.0	0.0	0.0	0.0
3-Methylheptane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Octane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Nonane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Decane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	14.7	12.6	24.9	9.5	10.8	4.4	5.9
Toluene	1.9	0.5	1.9	1.4	0.7	0.0	0.6
Ethylbenzene	1.3	0.6	0.5	0.0	0.0	0.0	0.0
p-Xylene + A-Pinene	0.0	0.1	0.1	0.1	0.0	0.0	0.0
m-Xylene	0.0	0.1	0.1	0.1	0.0	0.0	0.0
o-Xylene	0.0	0.1	0.1	0.1	0.0	0.0	0.0
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	0.7	1.0	0.3	0.7	0.0	0.0	0.0
m-Ethyltoluene	0.1	0.2	0.2	0.2	0.0	0.0	0.0
1,3,5-Trimethylbenzene	0.0	0.0	0.1	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	1.7	2.4	1.5	0.0	0.0	0.0	0.0
1,2,3-Trimethylbenzene	1.2	0.7	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	6.6	2.4	19.4	4.0	5.3	1.0	6.1
Sum of the Alkanes	60.2	16.8	41.7	71.8	53.3	15.9	20.7
Sum of the Aromatics	21.3	18.3	29.7	12.1	11.5	4.4	6.5
Sum of all compounds, NMHC	89.1	38.0	93.4	87.9	72.5	21.3	34.5

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-17	T-17	T-17	T-18	T-18	T-19	T-19
SAMPLE NUMBER:	9043	9044	9045	9046	9047	9048	9049
DATE:	9/16	9/16	9/16	9/16	9/16	9/17	9/17
TIME (CDT):	0812 30	0815 10	0819 25	1459 00	1512 15	0639 00	0641 05
LOCATION:	CBD	D. AIRPORT	TIA	TALALA	TALALA	MOUNDS	MOUNDS
ALTITUDE, FT MSL:	2500	775	725	2500	7500	1500	2500
Ethane	14.4	60.0	50.2	8.8	3.0	11.2	10.2
Ethylene	7.2	21.8	40.0	9.0	5.4	4.8	3.6
Propane	15.0	69.3	40.5	9.0	4.5	10.5	8.4
Acetylene	3.0	28.0	40.8	1.2	1.6	0.0	1.2
Isobutane	7.2	41.2	26.4	3.2	2.4	4.4	3.6
n-Butane	13.2	88.0	68.8	5.2	2.0	6.8	5.2
Propylene	2.1	15.3	20.7	7.2	4.5	1.5	0.0
Isopentane	100.0	65.0	75.0	3.0	18.5	4.0	0.0
n-Pentane + Cyclopentane	57.0	49.5	43.0	0.0	3.5	4.0	0.0
Trans-2-pentene + Isoprene	0.0	1.5	1.7	0.7	0.0	0.0	0.0
2,2-Dimethylbutane	0.0	0.2	1.0	268.2	0.0	0.0	0.0
2-Methylpentane	1.7	11.8	13.4	0.0	******	0.0	0.0
3-Methylpentane	1.3	15.4	17.7	0.0	******	0.0	0.0
1-Hexene	0.0	0.5	0.0	0.0	0.6	0.0	0.0
n-Hexane	1.7	17.0	13.6	2.1	0.0	0.0	0.0
2,4-Dimethylpentane	0.0	1.4	2.2	0.0	0.0	0.0	0.0
2-Methylhexane	6.1	10.2	13.7	14.7	2.3	0.0	0.0
3-Methylhexane	0.2	2.2	2.7	1.9	3.4	0.0	0.0
2,2,4-Trimethylpentane	8.9	12.6	6.6	0.0	5.5	0.0	0.0
n-Heptane	******	2.0	2.7	0.0	0.0	0.0	0.0
Methylcyclohexane	1.4	1.4	0.8	0.0	0.0	0.0	0.0
2,3,4-Trimethylpentane	1.7	47.2	1.0	0.0	0.9	0.0	0.0
2-Methylheptane	20.4	24.4	32.4	0.0	10.9	0.0	0.0
3-Methylheptane	0.7	3.8	4.6	0.0	0.1	0.0	0.0
n-Octane	0.2	4.0	3.9	0.0	0.0	0.0	0.0
n-Nonane	0.0	0.5	0.4	0.0	0.0	0.0	0.0
n-Decane	0.0	0.1	0.2	0.0	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Benzene	17.3	31.8	39.6	14.0	19.2	18.2	10.2
Toluene	19.9	14.7	28.7	6.3	11.9	1.2	0.6
Ethylbenzene	61.6	1.9	5.2	1.1	0.4	0.7	0.9
p-Xylene + A-Pinene	0.9	1.5	3.8	0.1	0.1	0.6	0.1
m-Xylene	2.3	5.0	10.1	0.1	0.1	0.3	0.1
o-Xylene	1.6	1.6	7.4	0.1	0.1	0.6	0.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	4.2	0.7	0.7	1.7	0.0	1.7	0.7
m-Ethyltoluene	0.8	0.3	3.1	6.0	0.0	0.3	0.3
1,3,5-Trimethylbenzene	0.0	0.3	1.0	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.2	0.5	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	0.0	2.7	11.8	0.0	0.0	17.7	11.1
1,2,3-Trimethylbenzene	0.0	0.5	0.5	0.0	0.0	0.0	0.0
n-Butylbenzene	4.9	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	9.3	39.1	62.4	16.9	10.5	6.3	3.6
Sum of the Alkanes	251.1	527.2	420.8	316.1	57.0	40.9	27.4
Sum of the Aromatics	113.5	61.2	112.4	29.4	31.8	41.3	24.1
Sum of all compounds, NMHC	376.9	655.5	636.4	363.6	100.9	88.5	56.3

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-19	T-19	T-19	T-19	T-19	T-19	T-20
SAMPLE NUMBER:	9050	9051	9052	9053	9054	9055	9056
DATE:	9/17	9/17	9/17	9/17	9/17	9/17	9/17
TIME (CDT):	0645 50	0651 45	0825 35	0836 30	0854 00	0857 30	1507 35
LOCATION:	MOUNDS	MOUNDS	CBD	CBD	D. AIRPORT	TIA	NOWATA
ALTITUDE, FT MSL:	5000	7500	2500	7500	775	725	2500
Ethane	10.2	3.4	3.0	3.0	25.2	19.0	9.2
Ethylene	4.6	3.0	1.6	1.8	5.0	7.8	2.8
Propane	6.0	2.7	2.1	2.4	45.9	16.5	7.5
Acetylene	0.0	0.0	0.0	0.0	1.4	3.8	0.0
Isobutane	1.2	0.0	0.0	0.0	32.8	8.0	4.8
n-Butane	3.2	1.2	0.0	0.0	75.6	15.2	4.8
Propylene	1.8	0.0	0.0	0.0	7.2	6.0	0.0
Isopentane	0.0	0.0	0.0	0.0	48.5	9.5	1.5
n-Pentane + Cyclopentane	0.0	0.0	0.0	0.0	40.0	9.0	0.0
Trans-2-pentene + Isoprene	0.0	0.0	0.0	******	1.6	0.0	0.0
2,2-Dimethylbutane	0.0	0.0	0.0	******	0.0	0.0	0.0
2-Methylpentane	0.0	0.0	0.0	******	6.0	******	******
3-Methylpentane	0.0	0.0	0.0	******	15.6	******	******
1-Hexene	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Hexane	0.0	0.0	0.0	******	8.6	1.1	0.0
2,4-Dimethylpentane	0.0	0.0	0.0	******	0.8	0.0	0.0
2-Methylhexane	0.0	0.0	0.0	******	7.6	0.6	0.2
3-Methylhexane	0.0	0.0	0.0	******	0.8	******	******
2,2,4-Trimethylpentane	0.0	0.0	0.0	******	0.8	0.0	0.0
n-Heptane	0.0	0.0	0.0	******	3.2	0.0	0.2
Methylcyclohexane	0.0	0.0	0.0	******	3.2	0.0	******
2,3,4-Trimethylpentane	0.0	0.0	0.0	******	4.8	0.0	0.0
2-Methylheptane	0.0	0.0	0.0	******	10.0	2.4	0.0
3-Methylheptane	0.0	0.0	0.0	******	1.8	0.2	0.0
n-Octane	0.0	0.0	0.0	******	1.9	0.0	0.0
n-Nonane	0.0	0.0	0.0	******	0.1	0.0	0.0
n-Decane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Undecane	0.0	0.0	0.0	******	0.0	0.0	0.0
n-Dodecane	0.0	0.0	0.0	******	0.0	0.0	0.0
Benzene	17.4	5.9	4.7	8.9	19.8	11.0	7.4
Toluene	0.5	1.0	1.7	1.3	6.9	3.3	6.6
Ethylbenzene	0.1	1.3	0.0	0.0	1.0	0.3	0.8
p-Xylene + A-Pinene	0.9	0.1	0.1	0.0	0.4	0.9	0.1
m-Xylene	1.3	0.1	0.1	0.0	1.1	1.0	0.1
o-Xylene	1.4	0.1	0.1	0.0	0.9	0.9	0.1
B-Pinene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
n-Propylbenzene	1.7	3.9	0.0	0.0	0.7	0.9	0.7
m-Ethyltoluene	0.2	0.2	0.0	0.0	0.2	0.2	0.5
1,3,5-Trimethylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
t-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
o-Ethyltoluene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1,2,4-Trimethylbenzene	43.9	0.7	0.0	0.0	10.5	23.4	3.6
1,2,3-Trimethylbenzene	0.7	0.0	0.0	0.0	0.0	0.0	0.0
n-Butylbenzene	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sum of the Alkenes	6.4	3.0	1.6	1.8	13.8	13.8	2.8
Sum of the Alkanes	20.6	7.3	5.1	5.4	333.2	81.5	28.2
Sum of the Aromatics	68.1	13.3	6.7	10.2	41.5	41.9	19.9
Sum of all compounds, NMHC	95.1	23.6	13.4	17.4	389.9	141.0	50.9

****** - INDICATES MISSING OR INVALIDATED DATA

INDIVIDUAL HYDROCARBON SPECIES - TULSA, OKLAHOMA 1977
ALL VALUES IN PPBC

AIRCRAFT, TULSA

FLIGHT NUMBER:	T-20
SAMPLE NUMBER:	9057
DATE:	9/17
TIME (CDT):	1518 40
LOCATION:	NOWATA
ALTITUDE, FT MSL:	7600

Ethane	3.8
Ethylene	3.8
Propane	2.4
Acetylene	0.0
Isobutane	0.0
n-Butane	0.0
Propylene	0.9
Isopentane	0.0
n-Pentane + Cyclopentane	0.0
Trans-2-pentene + Isoprene	0.0
2,2-Dimethylbutane	0.0
2-Methylpentane	0.0
3-Methylpentane	0.0
1-Hexene	0.0
n-Hexane	0.0
2,4-Dimethylpentane	0.0
2-Methylhexane	0.0
3-Methylhexane	0.0
2,2,4-Trimethylpentane	0.0
n-Heptane	0.0
Methylcyclohexene	0.0
2,3,4-Trimethylpentane	0.0
2-Methylheptane	0.0
3-Methylheptane	0.0
n-Octane	0.0
n-Nonane	0.0
n-Decane	0.0
n-Undecane	0.0
n-Dodecane	0.0
Benzene	5.8
Toluene	0.6
Ethylbenzene	0.8
p-Xylene + A-Pinene	0.1
m-Xylene	0.1
o-Xylene	0.1
B-Pinene	0.0
n-Propylbenzene	0.9
m-Ethyltoluene	0.2
1,3,5-Trimethylbenzene	0.0
t-Butylbenzene	0.0
o-Ethyltoluene	0.0
1,2,4-Trimethylbenzene	0.0
1,2,3-Trimethylbenzene	0.0
n-Butylbenzene	0.0
Sum of the Alkenes	4.7
Sum of the Alkanes	6.2
Sum of the Aromatics	8.6
Sum of all compounds, NMHC	19.5

****** - INDICATES MISSING OR INVALIDATED DATA

SECTION 4.13

RESULTS OF ORGANIC COMPOUND IDENTIFICATION BY TENAX GC/MASS SPECTROMETRY

Preceding page blank

Table 4.1. Ambient Air Sampling Protocol for GC/MS/COMP Analysis of Volatile Organics

Sampling Site	Location	Code	Date	Period, CDT	Volume Sampled (L)
Liberty Mounds	District Water Works	LM1	7/10-11/77	0355-0355 hrs	160.8
Downtown Tulsa, OK	Post Office (2nd & Elwood)	DT1	7/11-12/77	0600-0600 hrs	142.5
Liberty Mounds	District Water Works	LM2	9/21/77	0600-0900 hrs	351
Downtown Tulsa, OK	Post Office (2nd & Elwood)	DT2	9/21/77	0600-0900 hrs	390
Vera	Vera Post Office	V1	9/21/77	1400-1700 hrs	390

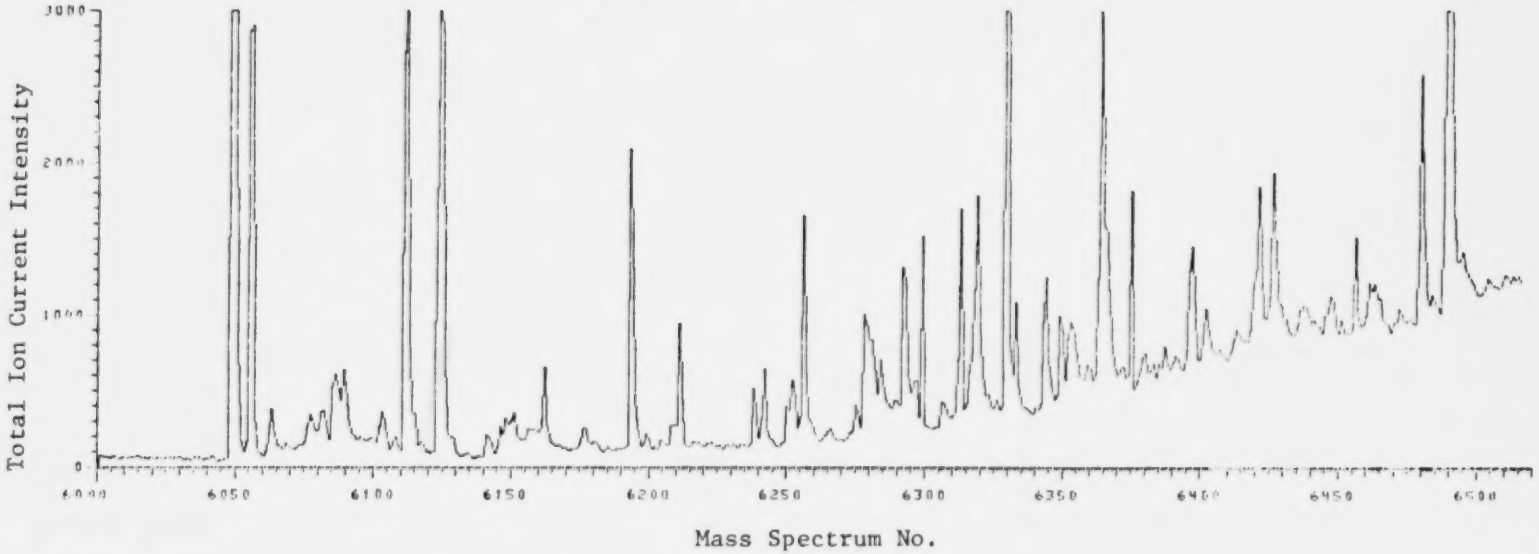

Figure 4.1. GC/MS/COMP profile of volatile organics in ambient air from Liberty Mounds (LM1).

Table 4.2. VOLATILE ORGANIC VAPORS IN AMBIENT AIR OF TULSA, OK (LM1)[a]

Chromatographic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
1	44	CO_2	6048
2A	50	n-propane (tent.)	6060
2B	50	C_4H_8 isomer	6061
2C	51	n-butane	6062
3	51	acetaldehyde	6063
3A	57	isopentane	6075
3C	59	furan	6079
3D	60	propanal + propenal	6080
4	61	n-pentane	6081
5	63	dichloroethylene isomer + acetone	6085
5A	64	dichloromethane (tent.)	6087
5C	69	C_6H_{12} isomer (tent.)	6096
5D	72	2-methylpentane	6103
5E	73	2-methylpropanal	6104
5F	74	C_6H_{14} isomer	6107
5G	75	3-methylpentane	6109
7	76	hexafluorobenzene	6111
8	78	n-hexane	6114
9	79	chloroform	6117
9A	80	methyl vinyl ketone	6119
9B	82	methyl ethyl ketone	6122
10	83	perfluorotoluene (ell)	6123
11	85	C_6H_{12} isomer	6129
11A	87	1,1,1-trichloroethane	6133
12	91	benzene	6141
12A	92	C_7H_{16} isomer	6142
12B	92	carbon tetrachloride	6143
13	93	2-methylhexane	6146
14	94	C_7H_{16} isomer	6148
14A	97	acetic acid (tent.)	6149
15	95	3-methylhexane	6151
15A	98	C_7H_{14} isomer	6156
16	101	n-heptane	6162
16A	103	$C_5H_{10}O$ isomer	6167
17	109	methylcyclohexane	6176
18	117	toluene	6192
18A	119	C_8H_{18} isomer	6196
19	121	C_8H_{18} isomer	6200
20	123	C_8H_{16} isomer	6204
21	125	n-hexanal	6207
21A	126	C_8H_{16} isomer	6209
22	127	n-octane	6211
22A	128	C_8H_{16} isomer	6214
22B	129	tetrachloroethylene	6216
22C	130	cyclopentanone (tent.)	6218
22D	132	C_6H_8O or C_7H_{12} isomer	6222
22E	135	C_7H_{12} or C_6H_8O isomer	6227
22F	136	C_9H_{20} isomer	6229
22G	137	C_8H_{16} isomer	6231
22H	138	C_9H_{20} isomer	6233
23	140	ethylbenzene	6238
23A	141	C_9H_{18} isomer	6240
24	142	xylene isomer	6242
24A	143	C_9H_{20} isomer	6244
25	146	styrene + 2-heptanone	6250
26	147	n-heptanal	6252
26A	148	o-xylene + C_9H_{18} isomer	6253
27	149	n-nonane	6256
27A	150	1-acetoxy-butene-1 (tent.)	6258
27B	153	unknown	6264
28	154	isopropylbenzene	6266
28A	158	$C_{10}H_{22}$ isomer (tent.)	6272
29	159	$C_{10}H_{16}$ isomer	6275
29A	160	n-propylbenzene	6277
30	160	benzaldehyde	6278
31	161	phenol	6280
31A	162	ethyltoluene isomer	6281
32	163	$C_{10}H_{22}$ isomer	6284
32A	164	$C_{10}H_{22}$ isomer	6286
32B	165	cyanobenzene	6287
32C	166	C_3-alkyl benzene isomer	6289
32D	167	$C_{10}H_{22}$ isomer	6291
33	167	n-octanal	6292
33A	168	$C_{10}H_{20}$ + $C_{10}H_{16}$ isomers	6293
34	169	1,2,4-trimethylbenzene	6295
35	170	n-decane	6297
35A	172	dichlorobenzene isomer (tent.)	6301
35B	173	$C_{11}H_{24}$ isomer (tent.)	6304
36	174	C_4-alkyl benzene isomer	6306
36A	175	$C_{11}H_{22}$ isomer	6307
36B	176	phenylacetaldehyde	6309
37	176	$C_{11}H_{22}$ isomer	6310
38	179	cresol isomer	6316
39	180	acetophenone	6318
40	182	$C_{12}H_{26}$ isomer	6322
40A	183	$C_{11}H_{22}$ isomer	6324
41	184	C_4-alkyl benzene isomer	6325
41A	185	C_4-alkyl benzene isomer	6328
42	186	n-nonanal	6329
42A	187	$C_{11}H_{22}$ isomer	6332
43	188	n-undecane	6333

(continued)

Table 4.2(cont'd)

Chromatographic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
43A	189	$C_{11}H_{22}$ isomer	6336
43B	192	C_4-alkyl benzene isomer	6342
44	193	C_2-alkyl phenol isomer	6343
45	196	C_2-alkyl phenol isomer	6349
46	197	$C_{12}H_{26}$ isomer	6352
47	198	$C_{12}H_{24}$ isomer	6354
47A	200	C_4-alkyl benzene isomer	6357
48	200	C_2-alkyl phenol isomer	6358
48A	202	$C_{12}H_{24}$ isomer	6361
49	203	n-decanal	6363
50	204	n-dodecane + naphthalene	6366
51	206	$C_{12}H_{24}$ isomer	6370
51A	208	$C_{12}H_{24}$ isomer	6373
52	211	unknown	6379
52A	212	$C_{12}H_{24}$ isomer	6382
52B	213	$C_{13}H_{26}$ isomer	6383
53	215	$C_{12}H_{24}$ isomer (tent.)	6388
53A	216	$C_{13}H_{28}$ isomer	6390
53B	218	$C_{13}H_{26}$ isomer	6393
54	219	n-undecanal	6396
55	220	n-tridecane	6397
55A	222	unknown	6401
56	222	β-methylnaphthalene	6402
56A	225	α-methylnaphthalene	6407
57	227	$C_{13}H_{26}$ isomer	6412
58	230	$C_{14}H_{28}$ isomer	6417
59	231	alkyl butyrate (BKG)	6420
59A	233	biphenyl	6424
60	234	n-tetradecane	6426
61	239	alkyl phthalate (BKG)	6436
61A	240	dimethylnaphthalene isomer	6440
61B	240	$C_{15}H_{32}$ isomer (tent.)	6446
62A	240	$C_{15}H_{30}$ isomer	6453
63	240	n-pentadecane	6456
64	240	unknown	6462

[a]See Table 4.1 for Sampling Protocol.

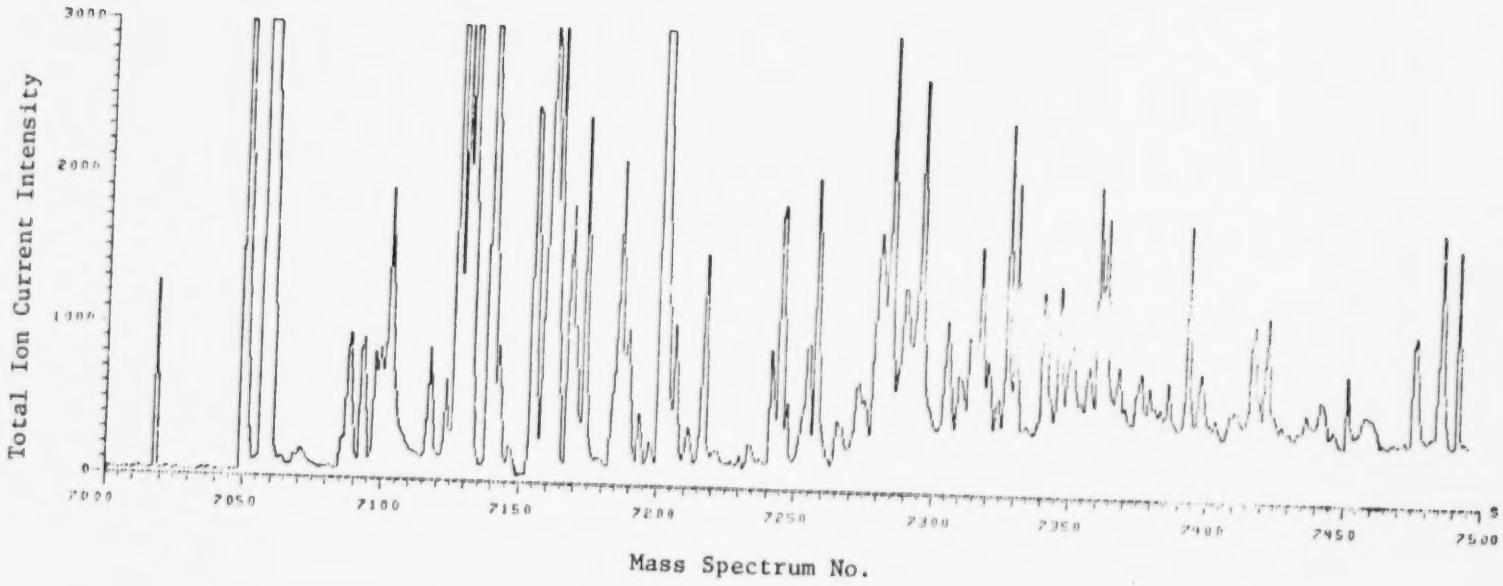

Figure 4.2. GC/MS/COMP profile of volatile organics in ambient air from Tulsa Post Office (DT1).

Table 4.3. VOLATILE ORGANIC VAPORS IN AMBIENT AIR OF TULSA, OK (DT1)[a]

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
1	45	CO_2	7049
5A	51	n-propane	7062
5B	53	butene isomer	7067
5C	54	n-butane	7068
6	55	acetaldehyde	7070
7	56	C_5H_{10} isomer	7073
8	63	isopentane	7085
9A	66	C_5H_{10} isomer	7091
10	67	n-pentane	7093
10A	68	propanal	7095
11	69	vinylidene chloride or 1,2-dichloroethylene	7097
12	70	dichloromethane	7099
12A	71	acetone + diethyl ether (tent.)	7100
13A	78	C_6H_{14} isomer (tent.)	7115
14	79	2-methylpentane	7117
14A	80	ter-butanol	7119
15	82	3-methylpentane	7123
15A	83	C_6H_{12} isomer	7124
15B	83	$C_5H_{10}O$ isomer (tent.)	7125
16	84	hexafluorobenzene (eS)	7126
17	85	n-hexane	7129
18	86	chloroform	7131
18A	89	methyl vinyl ketone	7136
18B	89	methyl ethyl ketone (tent.)	7137
19	90	perfluorotoluene (eS)	7139
19A	91	C_7H_{16} isomer	7141
20	92	C_6H_{12} isomer	7142
21	94	C_7H_{16} isomer	7146
21A	97	benzene	7153
22	98	C_7H_{16} isomer	7155
22A	99	carbon tetrachloride	7156
22B	99	cyclohexane	7157
23	100	2-methylhexane	7159
24	101	2,3-dimethylpentane	7160
25	102	3-methylhexane	7163
25A	104	C_7H_{14} isomer	7166
26	105	3-ethylpentane	7168
27	106	C_7H_{14} isomer	7120
27A	106	acetic acid (tent.)	7171
28	107	n-heptane	7173
29	113	C_8H_{18} isomer	7184
30	114	methylcyclohexane	7186
31	115	C_8H_{18} isomer	7189
32	117	C_8H_{16} isomer (tent.)	7193
32A	119	C_8H_{16} isomer	7197
33	120	C_8H_{18} isomer (tent.)	7198
34	121	toluene	7201
34A	122	C_8H_{18} isomer	7203
35	124	C_8H_{18} isomer	7206
36	126	C_8H_{16} isomer	7211
37	128	C_8H_{16} isomer	7215
38	129	n-octane	7217
38A	131	C_8H_{16} isomer	7220
39	132	tetrachloroethylene + C_8H_{16} isomer	7222
40	136	C_9H_{20} isomer	7230
41	137	C_9H_{20} isomer	7233
41A	138	ethylcyclohexane	7234
41B	139	C_9H_{18} isomer	7236
42	141	ethylbenzene	7241
42A	142	C_9H_{18} + C_9H_{20} isomer	7243
43	143	xylene isomer	7244
44	144	C_9H_{20} isomer	7247
45	146	C_9H_{20} isomer	7250
46	147	styrene	7252
47	148	o-xylene	7254
47A	149	C_9H_{18} isomer	7256
48	150	n-nonane	7257
49	151	acetoxy-butene-1 (tent.)	7260
50	153	$C_{10}H_{22}$ + C_9H_{18} isomers	7265
50A	154	isopropylbenzene	7267
50B	156	C_9H_{16} isomer	7270
51	157	$C_{10}H_{22}$ isomer	7272
51A	158	C_3-alkyl cyclohexane isomer	7273
52	158	$C_{10}H_{22}$ isomer	7274
53	160	benzaldehyde + n-propylbenzene	7278
53A	161	phenol	7280
53B	162	ethyltoluene isomer	7281
54	163	$C_{10}H_{22}$ isomer	7284
54A	164	$C_{10}H_{20}$ isomer	7286
54B	165	C_3-alkyl benzene isomer	7288
55	166	$C_{10}H_{22}$ isomer	7289
56	166	$C_{10}H_{22}$ isomer	7290
56A	167	n-octanal (tent.)	7292
57	168	1,2,4-trimethylbenzene	7294
58	168	n-decane	7295
58A	170	dichlorobenzene isomer	7299
58B	171	$C_{10}H_{20}$ isomer	7301
58C	172	$C_{11}H_{24}$ isomer	7302
59	173	1,2,3-trimethylbenzene	7305

(continued)

Table 4.3(cont'd)

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
60	175	o-dichlorobenzene	7309
60A	176	$C_{11}H_{24}$ isomer	7310
60B	176	C_4-alkyl cyclohexane	7311
61	177	$C_{11}H_{24}$ isomer	7313
61A	178	cresol + C_4-alkyl benzene isomers	7314
61B	178	C_4-alkyl benzene isomer	7315
62	179	acetophenone	7317
62A	180	$C_{11}H_{22}$ isomer	7319
63	181	$C_{11}H_{24}$ isomer	7320
64	182	C_4-alkyl benzene isomer	7323
64A	183	$C_{11}H_{22}$ isomer	7325
64B	184	C_4-alkyl benzene isomer	7326
65	184	n-nonanal	7327
66	186	n-undecane	7330
66A	187	C_5-alkyl benzene isomer	7332
66B	188	$C_{11}H_{22}$ isomer	6335
66C	190	C_4-alkyl benzene isomer	7338
67	191	dimethylphenol isomer	7340
68	192	$C_{12}H_{24}$ isomer (tent.)	7343
68A	193	$C_{11}H_{22}$ isomer	7344
69	194	C_2-alkyl phenol isomer	7346
70	196	C_5-alkyl benzene + $C_{12}H_{24}$ isomers	7351
70A	197	methylacetophenone isomer (tent.)	7353
71	198	$C_{12}H_{26}$ isomer	7354
73	201	n-decanal	7360
74	202	n-dodecane + naphthalene	7363
74A	204	$C_{12}H_{24}$ isomer	7366
75	205	$C_{13}H_{28}$ isomer	7368
75A	207	$C_{13}H_{26}$ isomer	7373
76	208	unknown	7375
77	210	$C_{13}H_{26}$ isomer	7379
78	213	$C_{13}H_{28}$ isomer	7384
79	214	$C_{14}H_{30}$ isomer	7386
79A	216	$C_{13}H_{26}$ isomer	7390
80	217	n-tridecane	7393
80A	218	$C_{13}H_{26}$ isomer	7395
81	220	8-methylnaphthalene	7398
83	222	α-methylnaphthalene	7403
84	225	C_7-alkyl cyclohexane isomer	7410
85	229	alkyl butyrate (BKG)	7417
85A	231	$C_{14}H_{28}$ isomer	7420
86	232	n-tetradecane	7422
86A	235	$C_{14}H_{28}$ isomer	7428
87	240	n-pentadecane	7451

[a]See Table 4.1 for Sampling Protocol

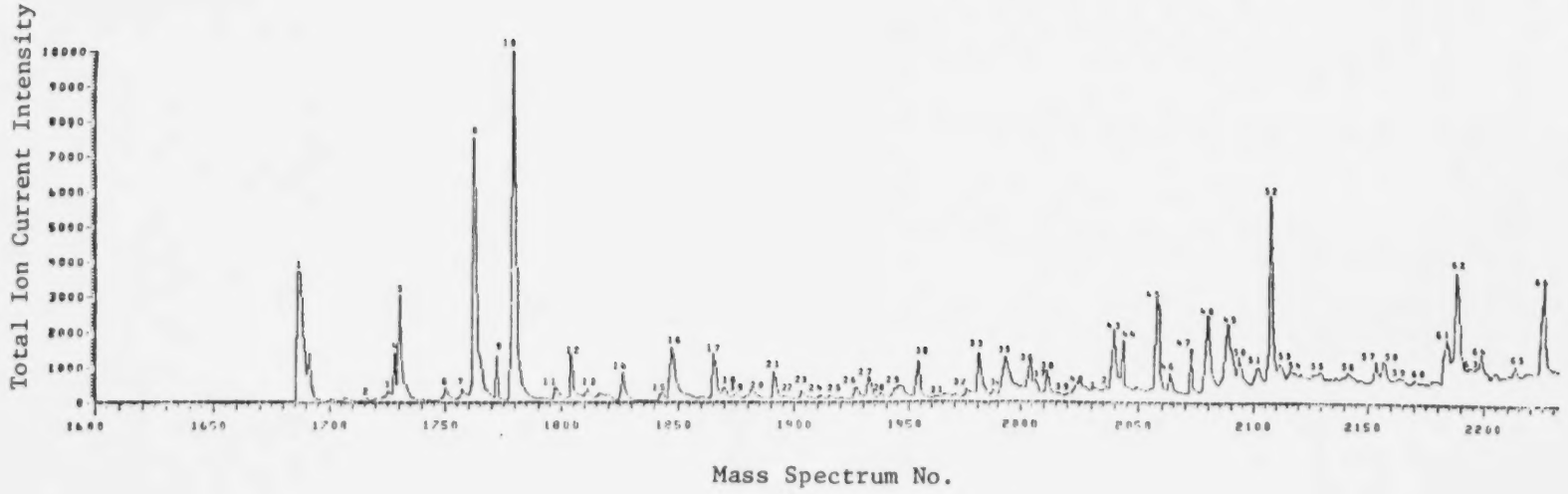

Figure 4.3. GC/MS/COMP profile of volatile organics in ambient air sample from Liberty Mounds (LM2).

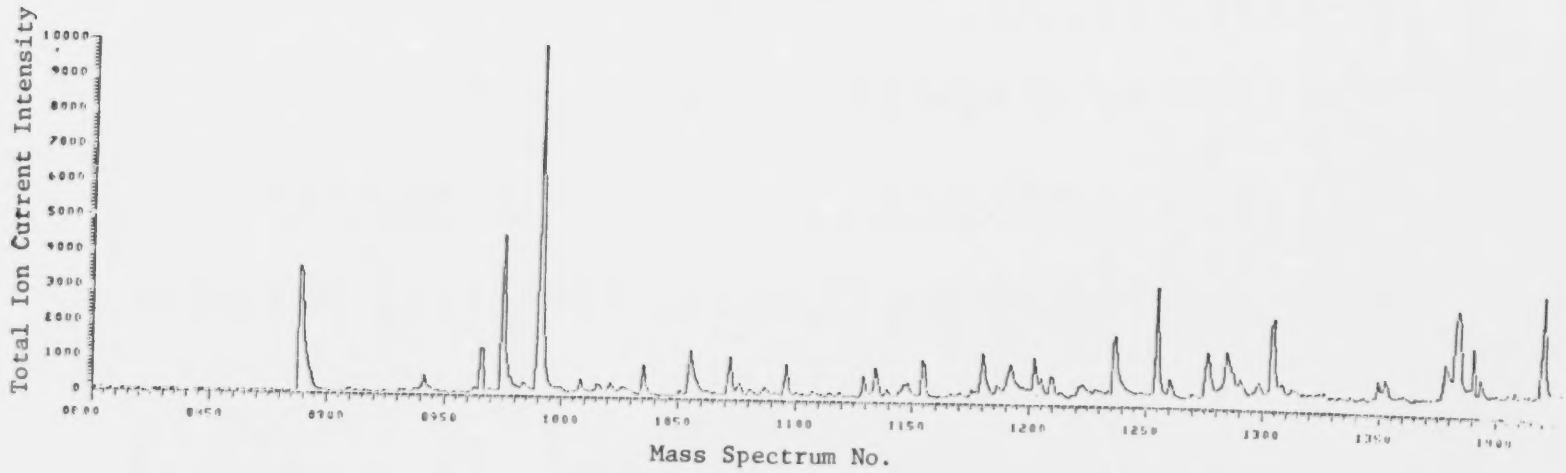

Figure 4.4. GC/MS/COMP profile of volatile organics in ambient air from Liberty Mounds (Duplicate sample of Fig. 4.3)

Table 4.4. VOLATILE ORGANIC VAPORS IN AMBIENT AIR OF TULSA, OK (LM2)[a]

Chromatographic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
1	49	CO_2	1686
1A	53	C_4H_8 isomer	1700
1B	54	n-butane (tent.)	1702
1C	55	C_4H_8 isomer	1704
2	55	acetaldehyde	1706
2A	59	isopentane	1717
2B	60	furan + propanal (tent.)	1721
3	61	acetone	1725
4	63	dichloromethane	1730
5A	65	C_6H_{12} isomer (tent.)	1737
5B	66	$C_4H_{10}O$ alcohol isomer	1740
5C	68	C_4H_8O ketone isomer	1748
6	69	2-methylpentane	1750
7	72	3-methylpentane	1757
7A	73	methyl ethyl ketone (tent.)	1759
8	74	hexafluorobenzene (eI)	1763
9	75	n-hexane	1765
9A	76	chloroform	1768
10	79	perfluorotoluene (eI)	1779
10A	80	C_6H_{12} isomer	1782
10B	83	C_7H_{16} isomer	1790
11	85	benzene	1797
11A	86	carbon tetrachloride	1801
11B	87	cyclohexane	1803
12	87	2-methylhexane	1805
12A	88	2,3-dimethylpentane	1808
13	89	3-methylhexane	1811
13A	91	n-pentanal	1816
13B	92	C_7H_{14} isomer	1818
13C	93	$C_5H_{10}O$ isomer	1819
13D	93	trichloroethylene	1820
14	95	n-heptane	1826
14A	96	C_7H_{14} isomer	1828
14B	98	C_8H_{16} isomer (tent.)	1836
15	100	methylcyclohexane	1843
16	101	acetic acid	1847
17	108	toluene	1865
18	109	C_8H_{18} isomer	1870
19	111	$C_6H_{12}O$ isomer	1875
19A	112	C_8H_{16} isomer	1879
20	113	n-hexanal	1881
20A	114	C_8H_{16} isomer	1883
20B	115	cyclopentanone (tent.)	1888
21	116	n-octane	1891
21A	117	C_8H_{16} isomer	1894
22	117	tetrachloroethylene	1895
24	123	C_9H_{20} isomer	1911
25	125	ethylcyclohexane	1915
25A	126	C_9H_{18} isomer	1918
25B	128	C_9H_{18} isomer	1924
26	128	ethylbenzene	1926
26A	129	C_9H_{18} isomer	1928
27	130	xylene isomer	1932
27A	130	C_9H_{20} isomer	1933
28	131	C_9H_{20} isomer	1937
28A	131	$C_7H_{14}O$ isomer	1940
28B	132	styrene	1943
29	134	n-heptanal	1945
29A	134	o-xylene	1946
29B	135	C_9H_{18} isomer	1948
29C	136	C_9H_{18} isomer	1950
30	137	n-nonane	1953
30A	140	$C_{10}H_{20}$ isomer	1962
31	141	isopropylbenzene	1965
31A	141	$C_{10}H_{22}$ isomer	1966
31B	144	$C_{10}H_{22}$ isomer	1974
32	144	C_9H_{18} isomer	1975
33	146	benzaldehyde	1980
33A	147	n-propylbenzene	1983
33B	147	C_9H_{18} isomer	1985
34	148	ethyltoluene isomer	1987
34A	149	1,3,5-trimethylbenzene + benzonitrile	1991
34B	149	$C_{10}H_{22}$ isomer	1992
35	150	phenol + $C_{11}H_{24}$ isomer	1993
35A	152	C_3-alkyl benzene + $C_{10}H_{20}$ isomers	1998
36	154	n-octanal	2004
36A	154	$C_{10}H_{20}$ isomer	2005
37	155	1,2,4-trimethylbenzene	2006
37A	155	C_4-alkyl benzene isomer	2007
37B	156	$C_{10}H_{20}$ isomer	2009
38	156	n-decane	2011
39	157	$C_{10}H_{20}$ isomer	2016
39A	158	1,2,3-trimethylbenzene	2022
39B	159	$C_{10}H_{20}$ isomer	2023
39C	159	phenylacetaldehyde	2024
40	160	$C_{11}H_{24}$ isomer	2025
41	162	$C_{11}H_{24}$ isomer	2031
41A	162	C_4-alkyl benzene isomer	2032
41B	163	$C_{10}H_{20}$ isomer	2033
42	164	saturated hydrocarbon	2036

(continued)

Table 4.4(cont'd)

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M. S. No.
42A	164	$C_{11}H_{22}$ isomer	2037
43	165	acetophenone	2039
44	166	cresol isomer	2042
44A	169	C_4-alkyl benzene + $C_9H_{18}O$ isomers (tent.)	2051
44B	170	C_4-alkyl benzene isomer	2054
45	171	n-nonanal	2057
45A	172	$C_{11}H_{22}$ isomer	2060
46	173	n-undecane	2063
47	177	unknown	2074
47A	178	$C_{13}H_{26}$ isomer	2077
48	179	dimethylphenol isomer	2079
48A	180	C_2-alkyl phenol isomer	2083
48B	181	$C_{11}H_{20}$ isomer (tent.)	2086
49	181	C_2-alkyl phenol isomer	2088
50	183	C_2-alkyl phenol isomer	2093
51	186	C_3-alkyl phenol isomer	2102
51A	187	naphthalene	2106
52	188	n-decanal	2108
53	189	n-dodecane	2111
53A	190	C_2-alkyl phenol isomer	2114
54	191	C_3-alkyl phenol isomer	2116
54A	193	C_3-alkyl phenol isomer	2121
55	195	unknown	2129
55A	196	C_3-alkyl phenol isomer	2132
56	199	$C_{13}H_{28}$ isomer	2141
57	203	3-methyl acetylacetone (tent.)	2153
58	204	n-tridecane	2156
58A	205	β-methylnaphthalene	2157
58B	207	$C_{13}H_{26}$ isomer	2164
59	207	α-methylnaphthalene	2165
60	209	$C_{13}H_{26}$ isomer	1270
61	213	isobutyl butyrate (tent.)	2183
62	215	alkyl butyrate	2187
62A	216	biphenyl	2190
63	217	C_6-alkyl phenol isomer	2194
64	218	n-tetradecane	2198
64A	219	alkyl phthalate (BKG)	2200
64B	220	C_2-alkyl naphthalene isomer	2205
64C	221	$C_{15}H_{32}$ isomer (tent.)	2206
65	223	C_2-alkyl naphthalene isomer	2212
66	227	$C_{11}H_{16}O_2$ isomer (tent.)	2225
67	230	$C_{16}H_{34}$ isomer	2233
67A	230	$C_{15}H_{30}$ isomer	2234
68	231	n-pentadecane	2237
68A	232	alkyl phenol isomer	2240
69	233	unknown	2244
69A	235	dibenzofuran	2249
69B	237	$C_{17}H_{36}$ isomer	2256
70	240	diethyl phthalate (BKG)	2263
71	240	2,2,4-trimethylpenta-1,3-diol di-isobutyrate (BKG)	2274
71A	240	n-hexadecane	2276
72	240	C_4-alkyl phenol isomer (tent.)	2279
73	240	unsat. hydrocarbon (tent.)	2283
73A	240	alkyl phthalate (BKG)	2287
75	240	$C_{17}H_{34}$ isomer	2313
76	240	n-heptadecane	2320
77	240	sat. hydrocarbon (tent.)	2327

[a]See Table 4.1 for Sampling Protocol

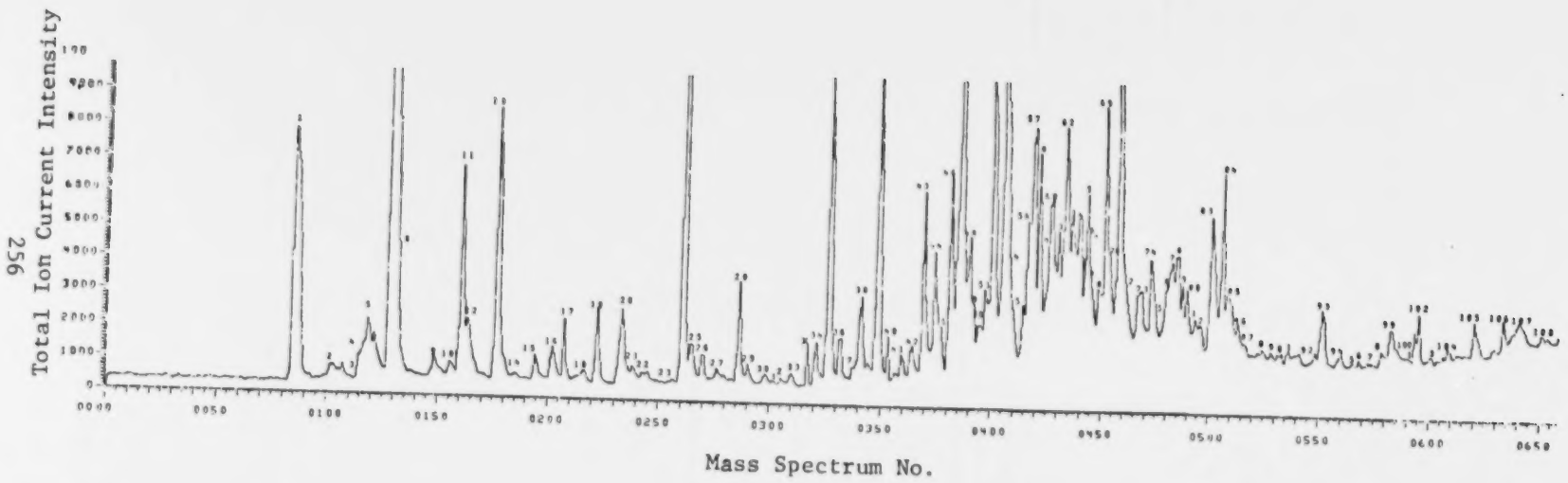

Figure 4.5. GC/MS/COMP profile of volatile organics in ambient air from Post Office in downtown Tulsa, OK (DT2).

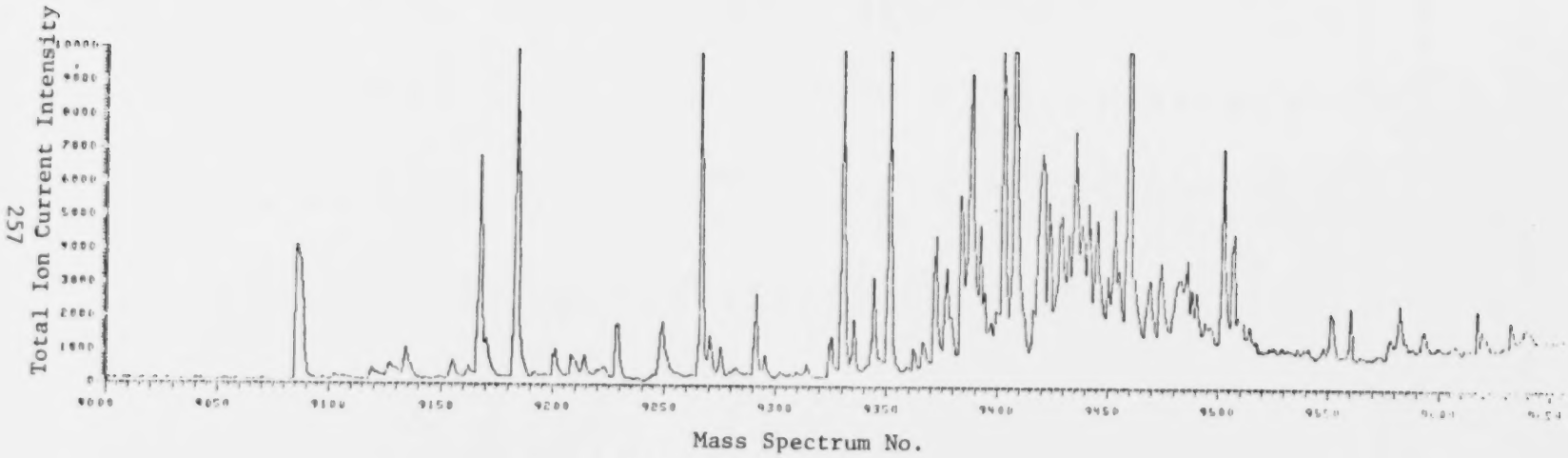

Figure 4.6. GC/MS/COMP profile of volatile organics in ambient air from Post Office in downtown Tulsa, OK (Duplicate sample of Fig. 4.5)

Table 4.5. VOLATILE ORGANIC VAPORS IN AMBIENT AIR OF TULSA, OK (DT2)[a]

Chromatographic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
1	48	CO_2	0085
1A	52	n-propane (tent.)	0096
1B	53	butene isomer	0098
1C	53	C_4H_{10} isomer	0100
2	54	acetaldehyde	0101
2A	55	n-butane	0104
2B	56	C_4H_8 isomer	0107
4	58	isopentane	0114
4A	58	dimethyl ether	0115
5	59	acetone	0118
5A	60	C_5H_{10} isomer	0120
6	60	n-pentane	0121
6A	61	C_5H_{10} isomer	0123
7	62	dichloromethane	0128
8A	64	ter-butanol (tent.)	0133
8B	64	carbon disulfide (tent.)	0134
8C	66	C_4H_8O aldehyde isomer	0139
8D	68	C_6H_{12} isomer	0144
9	69	2-methylpentane	0148
9A	71	C_6H_{14} isomer	0153
9B	71	butanal isomer	0154
10	72	3-methylpentane	0156
10A	72	C_6H_{12} isomer	0158
11	73	hexafluorobenzene (eS)	0160
12	74	n-hexane	0163
12A	75	chloroform	0166
12B	78	C_6H_{12} isomer	0174
13	79	perfluorotoluene (eS)	0176
13A	80	methylcyclopentane	0180
14	81	1,1,1-trichloroethane	0185
14A	82	$C_5H_{10}O$ isomer (tent.)	0188
15	85	benzene	0194
15A	85	carbon tetrachloride	0197
15B	86	cyclohexane	0199
16	87	2-methylhexane	0202
16A	88	2,3-dimethylpentane	0206
17	89	3-methylhexane	0208
17A	90	C_7H_{14} isomer	0211
17B	90	n-pentanal	0212
17C	91	C_7H_{14} isomer	0214
18	92	trichloroethylene	0216
18A	92	C_8H_{18} isomer	0217
19	94	n-heptane	0222
19A	95	C_7H_{14} isomer	0225
19B	96	C_7H_{14} isomer	0229
20	97	acetic acid	0233
20A	98	C_8H_{18} isomer (tent.)	0236
21	99	methylcyclohexane	0238
21A	100	C_8H_{18} isomer	0242
22	101	C_8H_{18} isomer	0244
23	105	C_8H_{16} isomer	0256
24	107	toluene	0260
25	108	C_8H_{18} isomer	0264
26	109	C_8H_{18} isomer	0269
26A	110	C_8H_{16} isomer	0271
26B	111	C_8H_{16} isomer	0275
27	112	n-hexanal	0276
27A	113	C_8H_{16} isomer	0280
27B	114	C_9H_{18} isomer	0283
28	115	n-octane	0286
29	116	tetrachloroethylene	0290
31	120	furaldehyde isomer (tent.)	0303
32	121	C_9H_{20} isomer	0305
32A	122	C_8H_{14} isomer (tent.)	0307
33	123	ethylcyclohexane + C_9H_{20} isomer	0310
33A	125	C_9H_{18} isomer	0315
34	127	ethylbenzene	0321
35	128	xylene isomer	0326
35A	129	C_9H_{20} isomer	0328
36	130	C_9H_{20} isomer	0331
37	132	styrene	0337
37A	132	C_9H_{18} isomer	0338
37B	133	n-heptanal	0339
38	133	o-xylene	0341
38A	134	C_9H_{18} isomer	0344
39	136	n-nonane	0348
40	138	C_9H_{18} isomer	0356
41	139	isopropylbenzene + $C_{10}H_{22}$ isomer	0359
41A	140	$C_{10}H_{20}$ isomer	0362
41B	141	C_9H_{16} isomer (tent.)	0363
42	141	$C_{10}H_{22}$ isomer	0364
43	143	C_3-alkyl cyclohexane + $C_{10}H_{22}$ isomer	0369
43A	143	$C_{10}H_{20}$ isomer	0371
43B	144	$C_{10}H_{22}$ isomer	0373
44	144	benzaldehyde	0374
44A	145	$C_{10}H_{20}$ isomer	0375
45	145	n-propylbenzene	0377
45A	146	$C_{10}H_{20}$ isomer	0379
46	147	ethyltoluene isomer	0381

(continued)

Table 4.5(cont'd)

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
46A	147	$C_{10}H_{22}$ isomer	0383
47	148	1,3,5-trimethylbenzene + phenol	0385
47A	149	$C_{10}H_{20}$ isomer	0388
48	149	$C_{10}H_{22}$ isomer	0390
49	150	o-ethyltoluene	0392
50	151	$C_{10}H_{20}$ isomer	0395
51	152	n-octanal	0397
51A	152	$C_{10}H_{20}$ isomer	0399
52	153	1,2,4-trimethylbenzene	0400
52A	154	$C_{10}H_{20}$ isomer	0402
53	155	n-decane	0405
53A	156	dichlorobenzene isomer	0408
54	156	$C_{10}H_{20}$ isomer	0409
54A	156	sec-butylbenzene	0410
54B	157	$C_{11}H_{22}$ isomer	0413
55	157	$C_{11}H_{24}$ isomer + ter-butylbenzene	0414
56	158	1,2,3-trimethylbenzene	0416
57	159	$C_{11}H_{24}$ isomer	0418
58	160	o-dichlorobenzene	0421
59	161	indan + $C_{11}H_{22}$ isomer	0424
60	162	C_4-alkyl cyclohexane isomer	0426
60A	163	$C_{11}H_{22}$ isomer	0429
61	163	C_4-alkyl benzene isomer	0430
62	164	acetophenone	0433
	164	C_4-alkyl benzene isomer + n-butylbenzene	0434
63	165	$C_{11}H_{24}$ isomer	0436
64	165	$C_{11}H_{22}$ isomer	0437
64A	166	$C_{12}H_{26}$ isomer	0439
65	166	C_4-alkyl benzene isomer	0440
65A	167	$C_{10}H_{18}$ isomer	0442
66	167	$C_{11}H_{24}$ isomer	0443
67	168	C_4-alkyl benzene isomer	0445
67A	168	$C_{11}H_{22}$ isomer	0447
68	169	C_4-alkyl benzene isomer	0448
68A	169	C_4H_7-benzene isomer	0450
69	170	n-nonanal	0451
70	170	$C_{11}H_{22}$ isomer	0453
70A	171	$C_{12}H_{24}$ isomer	0455
71	172	n-undecane	0457
72	173	C_4-alkyl benzene + $C_{11}H_{22}$ isomers	0460
72A	17	C_4-alkyl benzene isomer	0462
72B	174	$C_{11}H_{22}$ isomer	0463

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
72C	174	C_4-alkyl benzene isomer	0465
73	175	$C_{12}H_{26}$ isomer	0467
73A	175	tetramethylbenzene isomer	0468
73B	176	$C_{12}H_{24}$ isomer	0469
73C	176	$C_{11}H_{20}$ isomer	0471
74	177	C_2-alkyl phenol + $C_{12}H_{26}$ isomers	0472
74A	177	C_5-alkyl benzene isomer	0474
75	170	$C_{12}H_{24}$ + C_5-alkyl benzene isomers	0477
75A	179	C_5H_9-benzene isomer (tent.)	0478
76	179	C_5-alkyl cyclohexane isomer	0479
76A	179	$C_{11}H_{20}$ isomer	0480
76B	180	$C_{12}H_{24}$ isomer	0481
77	180	C_2-alkyl phenol + C_5-alkyl benzene isomer	0482
77A	180	C_4H_7-benzene isomer	0483
78	181	tetramethylbenzene isomer	0484
79	182	C_5-alkyl benzene isomer	0487
79A	182	C_2-alkyl phenol isomer	0488
80	182	$C_{12}H_{26}$ isomer	0489
81	183	C_5-alkyl benzene isomer	0493
82	184	C_3-alkyl phenol + $C_{12}H_{24}$ isomers	0496
82A	185	$C_{12}H_{22}$ isomer	0498
82B	186	naphthalene	0500
83	186	n-decanal	0501
83A	187	$C_{12}H_{24}$ isomer	0504
83B	187	C_5-alkyl benzene isomer	0505
84	188	n-dodecane	0506
85	189	$C_{12}H_{24}$ isomer	0509
85A	189	C_5-alkyl benzene isomer	0510
86	190	$C_{13}H_{28}$ isomer	0513
87	191	C_6-alkyl benzene isomer	0516
87A	192	$C_{13}H_{26}$ isomer	0520
88	194	$C_{13}H_{26}$ isomer	0525
89	195	$C_{12}H_{24}$ isomer	0528
89A	196	C_5H_9-benzene isomer	0531
90	198	$C_{13}H_{28}$ isomer	0536
90A	199	$C_{13}H_{26}$ isomer	0539
91	199	$C_{14}H_{30}$ isomer	0541
92	202	unsat. hydrocarbon	0548
93	203	n-tridecane	0551
93A	203	α-methylnaphthalene	0552
93B	203	$C_{13}H_{26}$ isomer	0554
94	206	β-methylnaphthalene	0560

(continued)

Table 4.5(cont'd)

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
95	207	$C_{14}H_{28}$ isomer	0565
96	208	$C_{14}H_{30}$ isomer	0568
96A	209	unsat. hydrocarbon	0570
97	210	$C_{14}H_{28}$ isomer	0573
98	212	$C_{14}H_{30}$ isomer	0578
99	213	alkyl butyrate	0582
99A	214	$C_{15}H_{32}$ isomer	0584
100	214	biphenyl	0585
101	215	unsat. hydrocarbon	0589
102	217	n-tetradecane	0593
102A	218	$C_{15}H_{30}$ isomer	0598
103	219	C_2-alkyl naphthalene isomer	0600
103A	219	$C_{15}H_{32}$ isomer	0601
103B	221	$C_{15}H_{30}$ + C_2-alkyl naphthalene isomers	0606
104	222	$C_{15}H_{32}$ isomers	0609
106	230	n-pentadecane	0633
107A	234	dibenzofuran	0645
108	236	$C_{16}H_{34}$ isomer	0650
110A	240	n-hexadecane	0673

[a]See Table 4.1 for Sampling Protocol

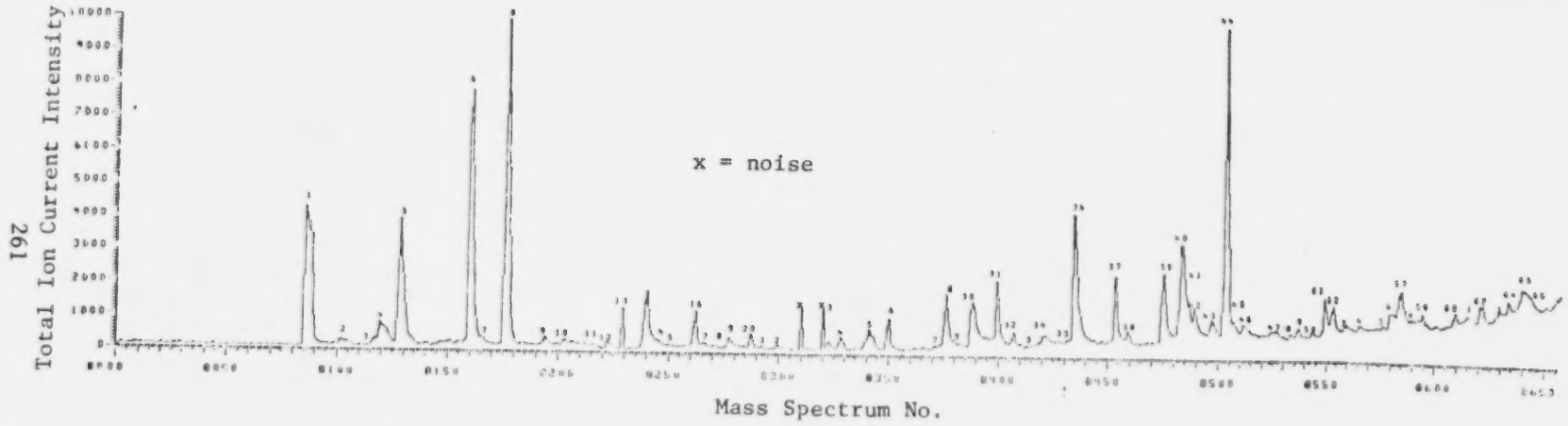

Figure 4.7. GC/MS/COMP profile of volatile organics in ambient air from Vera (V1).

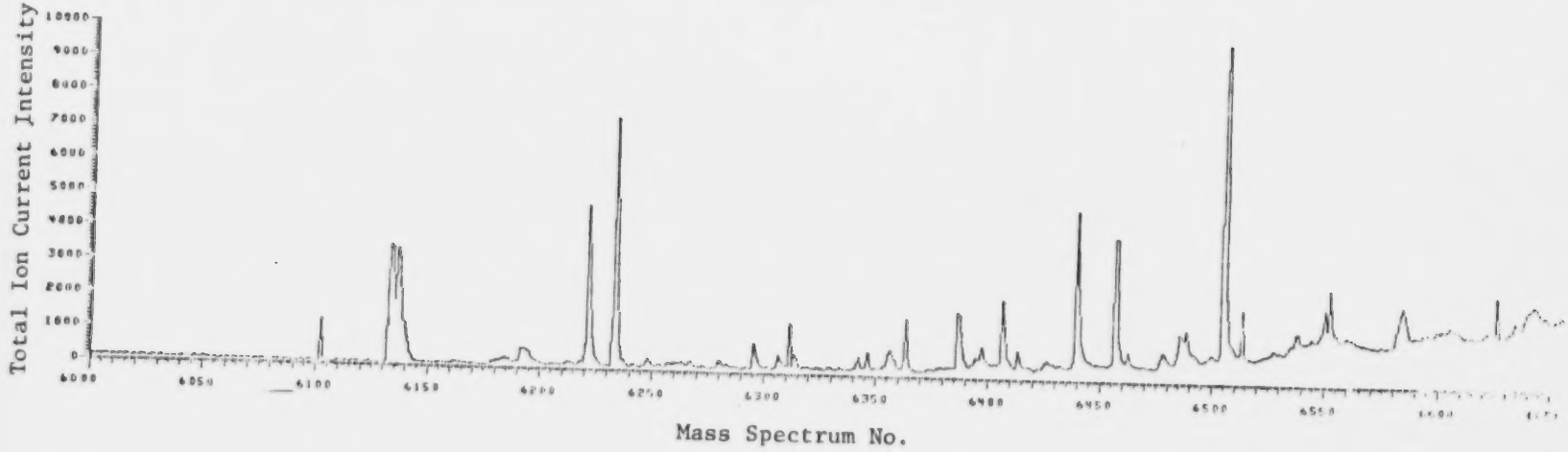

Figure 4.8. GC/MS/COMP profile of volatile organics in ambient air sample from Vera (Duplicate sample of Fig. 4.7)

Table 4.6. VOLATILE ORGANIC VAPORS IN AMBIENT AIR OF TULSA, OK (V1)[a]

Chromatographic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
1	49	CO_2	8086
1A	52	C_4H_8 isomer	8098
1B	53	n-butane	8100
2	54	acetaldehyde	8103
2A	57	isopentane	8114
3	58	dimethyl ether (tent.) + propenal isomer	8116
3A	58	propanal	8117
4	59	acetone + furan (tent.)	8119
4A	59	C_5H_{10} isomer	8120
4B	60	n-pentane	8122
5	62	methylene chloride	8128
5A	66	C_4H_8O isomer	8140
5B	68	C_4H_6O isomer	8145
5C	70	methyl isopropyl ketone	8151
5D	71	n-butanal	8155
5E	72	methyl vinyl ketone (tent.)	8157
6	73	hexafluorobenzene (eS)	8160
6A	74	n-hexane	8163
7	75	chloroform	8166
8	78	perfluorotoluene (eS)	8177
8A	81	1,1,1-trichloroethane	8185
8B	82	C_7H_{14} isomer (tent.)	8189
9	84	benzene	8194
9A	85	carbon tetrachloride	8196
9B	86	cyclohexane	8199
10	87	C_7H_{14} isomer	8203
10A	89	C_7H_{16} isomer (tent.)	8208
10B	90	n-pentanal	8212
11	91	C_7H_{14} isomer	8216
11A	91	C_8H_{18} isomer (tent.)	8217
12	93	n-heptane	8222
12A	96	C_7H_{14} isomer	8233
12B	98	methylcyclohexane	8238
13	99	acetic acid	8240
14	101	C_8H_{18} isomer (tent.)	8245
14A	102	C_8H_{16} isomer	8249
15	103	C_8H_{18} isomer	8250
15A	105	C_8H_{16} isomer	8255
16	107	toluene	8262
17	108	C_8H_{18} isomer	8265
18	110	C_8H_{16} isomer (tent.)	8270
19	112	n-hexane	8277
19A	113	C_8H_{16} isomer	8280
19B	113	C_9H_{20} isomer (tent.)	8281
19C	114	C_8H_{16} isomer	8283
20	115	n-octane	8287
21	117	tetrachloroethylene	8292
21A	118	C_9H_{20} isomer	8296
22A	122	C_9H_{20} isomer	8307
22B	124	C_9H_{18} isomer	8315
23	127	ethylbenzene	8323
24	129	xylene isomer + phenylacetylene	8328
24A	131	$C_7H_{14}O$ isomer (tent.)	8334
24B	132	C_9H_{18} isomer	8338
24C	132	styrene	8339
25	133	n-heptanal	8341
25A	134	o-xylene	8342
25B	134	C_9H_{18} isomer	8343
25C	134	$C_7H_{14}O$ isomer	8344
26	136	n-nonane	8350
26A	139	$C_{10}H_{22}$ isomer	8361
26B	140	isopropylbenzene	8362
27	144	$C_{10}H_{22}$ isomer	8371
27A	144	$C_8H_{16}O$ isomer	8373
28	145	benzaldehyde	8376
28A	146	n-propylbenzene	8379
29	147	ethyltoluene isomer	8382
29A	148	$C_{10}H_{22}$ isomer	8384
30	149	phenol + benzonitrile (tent.)	8388
30A	149	$C_{11}H_{24}$ isomer	8389
30B	149	C_9H_{18} isomer	8390
30C	150	$C_{10}H_{22}$ isomer	8394
31	152	n-octanal	8400
31A	1a53	C_3-alkyl benzene isomer	8402
31B	154	$C_{10}H_{20}$ isomer	8405
32	155	n-decane	8407
33	156	$C_{10}H_{20}$ isomer	8410
33A	157	$C_{11}H_{22}$ isomer (tent.)	8415
33B	158	C_4-alkyl benzene isomer	8418
34	159	phenylacetaldehyde	8420
34A	160	$C_{12}H_{26}$ isomer	8422
34B	161	$C_{11}H_{22}$ isomer	8425
34C	162	$C_{11}H_{22}$ isomer	8428
34D	162	$C_{11}H_{24}$ isomer	8430
35	163	$C_{11}H_{22}$ isomer (tent.)	8432
36	164	acetophenone	8434
36A	165	cresol isomer	8437
36B	166	$C_{11}H_{22}$ isomer	8440
36C	168	C_4-alkyl benzene isomer	8446
36D	169	$C_{11}H_{24}$ isomer	8450

(continued)

Table 4.6(cont'd)

Chromato-graphic Peak No.	Elution Temp. (°C)	Compound	M.S. No.
37	170	n-nonanal	8453
37A	171	$C_{11}H_{22}$ isomer	8457
38	172	n-undecane	8459
38A	173	$C_{12}H_{24}$ isomer	8461
38B	174	$C_{11}H_{22}$ isomer	8463
38C	175	C_2-alkyl phenol isomer	8468
39	177	C_2-alkyl phenol isomer	8475
40	180	ethylphenol	8484
41	181	C_2-alkyl phenol + $C_{12}H_{24}$ isomers	8486
42	182	dimethylphenol isomer	8489
43	185	C_3-alkyl phenol isomer	8497
43A	186	C_2-alkyl phenol isomer	8500
43B	186	$C_{12}H_{24}$ isomer	8501
44	187	n-decanal	8503
45	188	$C_{12}H_{26}$ isomer	8507
46	189	C_3-alkyl phenol isomer	8512
46A	190	$C_{12}H_{24}$ isomer	8513
46B	193	unknown	8523
47	194	$C_{13}H_{28}$ isomer (tent.)	8526
47A	195	C_3-alkyl phenol + $C_{13}H_{26}$ isomers	8530
48	197	$C_{13}H_{28}$ isomer	8534
49	198	unsat. hydrocarbon	8537
50	200	unsat. hydrocarbon	8544
51	202	n-undecanal	8549
51A	202	$C_{13}H_{26}$ isomer	8551
52	203	n-tridecane	8553
53	205	unknown	8559
54	207	$C_{14}H_{30}$ isomer	8566
54A	210	$C_{14}H_{30}$ isomer	8574
55	211	$C_{13}H_{26}$ isomer	8576
55A	212	$C_{14}H_{30}$ isomer	8579
56	212	alkyl butyrate	8580
57	213	C_4-alkyl butyrate isomer (BKG)	8583
58	215	$C_{14}H_{28}$ + C_6-alkyl phenol isomers	8589
59	217	n-tetradecane	8594
59A	218	$C_{15}H_{32}$ isomer	8596
59B	219	$C_{14}H_{28}$ isomer	8599
59C	221	C_6-alkyl phenol isomer	8605
59D	221	$C_{15}H_{32}$ isomer	8607
60	221	$C_{15}H_{30}$ isomer	8609
61	223	unknown	8614
63	228	$C_{16}H_{32}$ isomer	8629
63A	229	$C_{15}H_{30}$ isomer	8631
64	229	n-pentadecane	8633
65	232	unknown	8639
66	233	$C_{16}H_{34}$ isomer (tent.)	8643
67	239	diethyl phthalate (BKG)	8660
67A	240	sat. hydrocarbon	8669
69	240	sat. hydrocarbon	8676
70	240	sat. hydrocarbon	8681
70A	240	$C_{16}H_{32}$ isomer	8688
71	240	sat. hydrocarbon	8696
72	240	sat. hydrocarbon	8705
74	240	n-heptadecane	8718
75	240	$C_{18}H_{38}$ isomer (tent.)	8723
76	240	unsat. hydrocarbon	8733
77	240	$C_{18}H_{38}$ isomer	8745
78	240	unknown	8766
79	240	unknown	8770
80	240	unsat. hydrocarbon	8777

[a]See Table 4.1 for Sampling Protocol

SECTION 4.14

AIRCRAFT FLIGHT TRACKS AND POLLUTANT/METEOROLOGICAL PROFILES

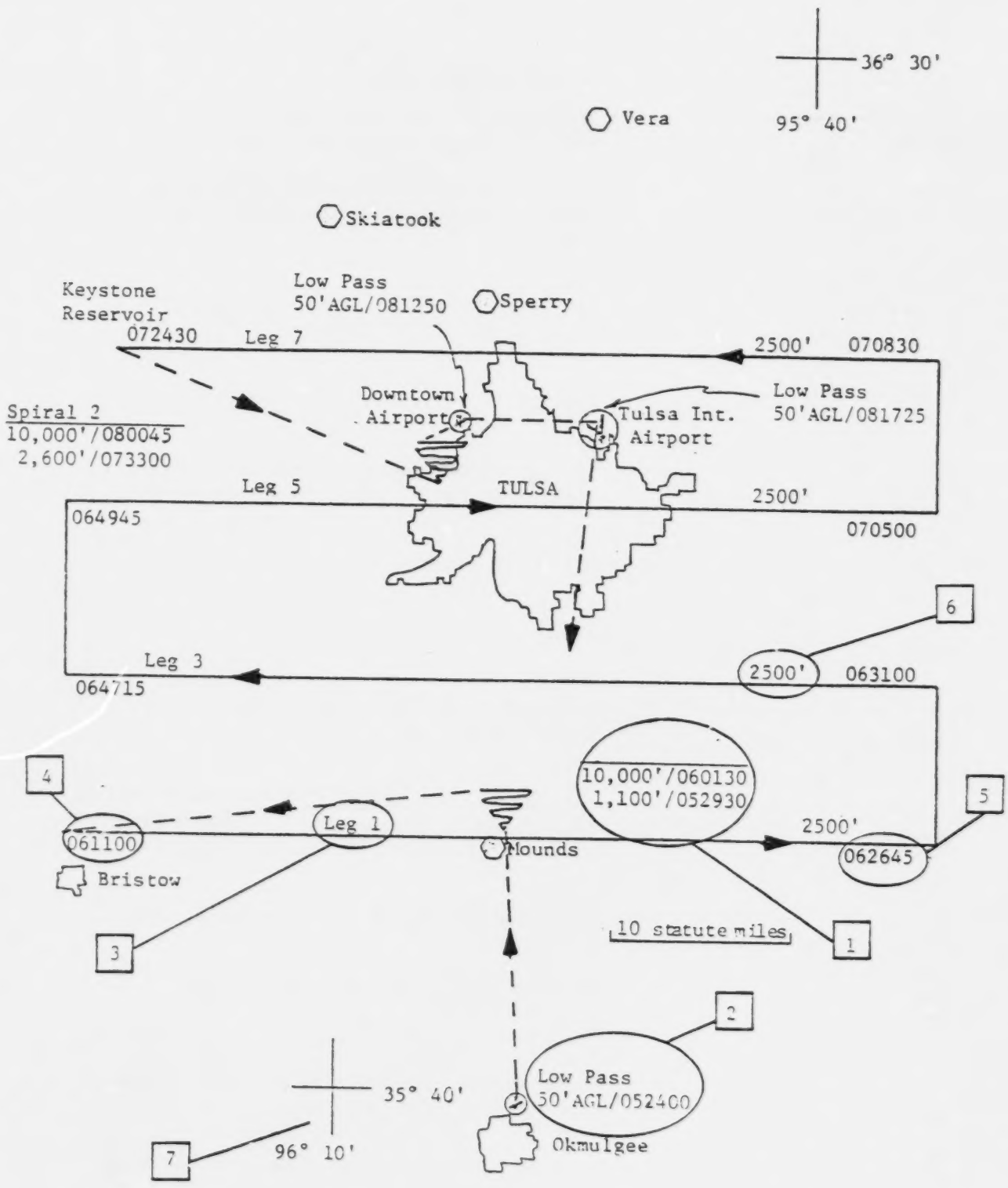

Figure 4.9. Example flight track, with call out numbers. (See Table 4.7 for explanation.)

Preceding page blank

Table 4.7. Flight track legend

Symbol	Description
	Aircraft flight track, data appears on computer printout. Arrow shows flight direction.
	Aircraft movement, no data available. Arrow shows flight direction.
	Vertical Spiral Location.
	Spiral number, starting and stopping altitudes (MSL) and time (CDT).
	RTI field station.
	Airport.
	Low pass time (CDT) and altitude above ground level (AGL).
	Chronological numbering of horizontal flight path segments (leg number). References computer printout records to flight path.
	Starting time (CDT) of major flight leg.
	End time (CDT) of major flight leg.
	Approximate altitude (MSL) flown. Shown for major flight legs only.
	Map orientation points showing W latitude and N longitude.

Table 4.8. Tulsa Aircraft Measurement Data Flights Summary

Flight Number	Date (1977)	Flight Time (CDT) Start	Finish	Type of Flight
T-03	25 Aug.	0913	1022	AM Transport
T-04		1424	1517	PM Transport
T-05	26 Aug.	0622	0846	AM Transport
T-06		1253	1515	PM Transport
T-09	02 Sept.	0630	0901	AM Transport
T-10	02 Sept.	1324	1536	PM Transport
T-11	03 Sept.	0627	0847	AM Transport
T-12	03 Sept.	1332	1540	PM Transport
T-14	08 Sept.	1252	1323	AM Stagnation
T-15	09 Sept.	1502	1653	PM Transport
T-16	11 Sept.	0624	0830	AM Transport
T-17	16 Sept.	0626	0809	AM Transport
T-18	16 Sept.	1337	1524	PM Transport
T-19	17 Sept.	0639	0842	AM Transport
T-20	17 Sept.	1337	1527	PM Transport

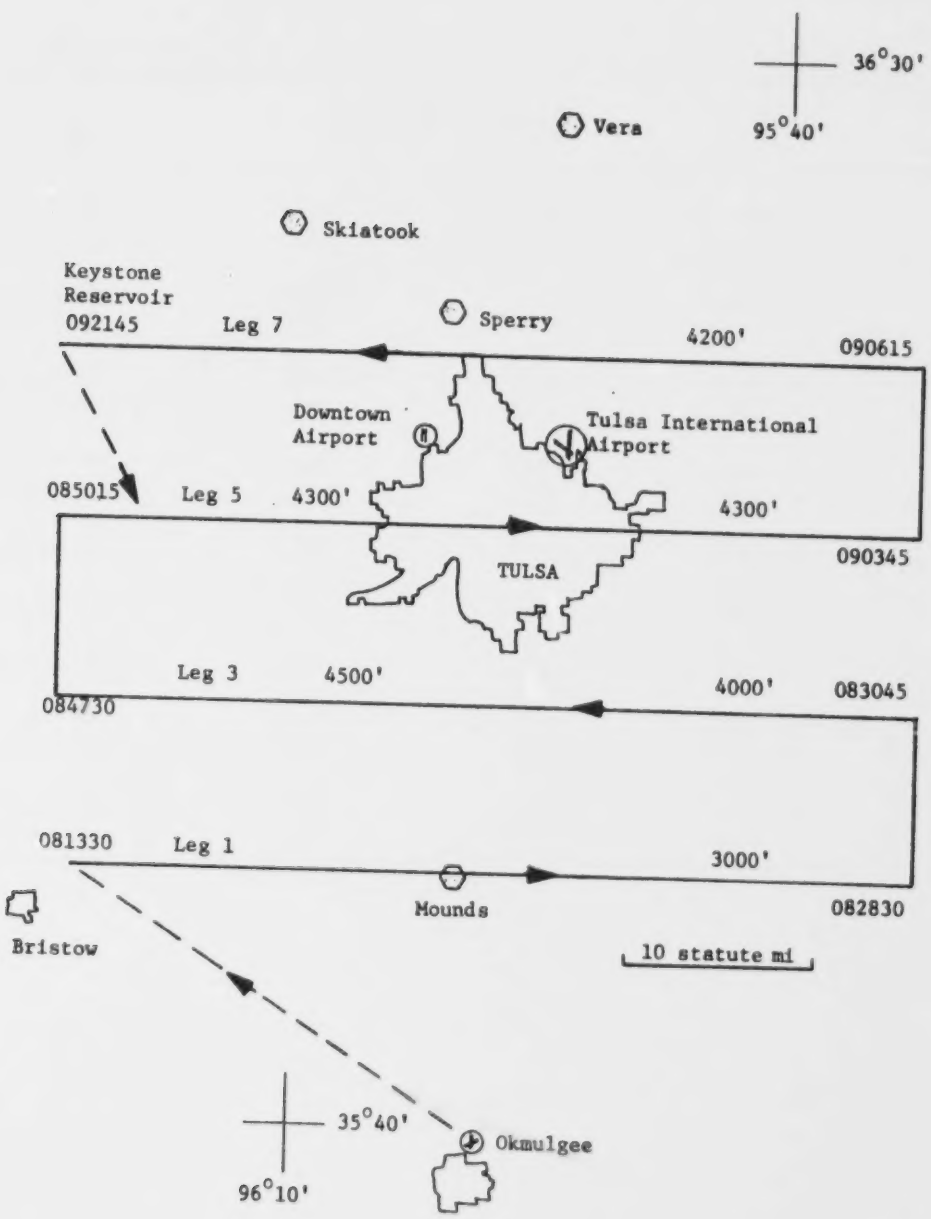

Figure 4.10. Tulsa Flight T03, August 25, 1977.
AM Transport Pattern

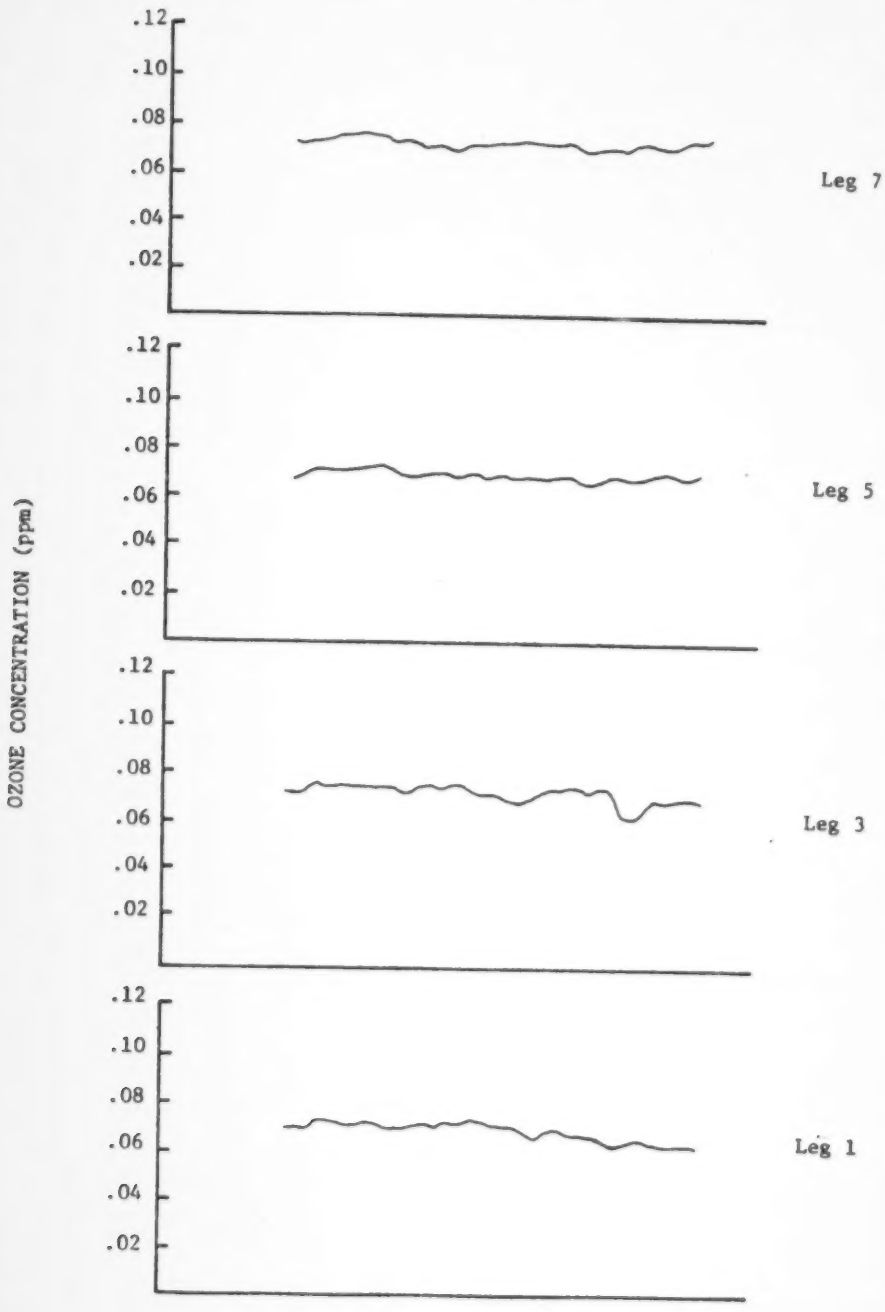

Figure 4.11. Tulsa Flight T03, August 25, 1977. Horizontal Traverse, Ozone Concentration.

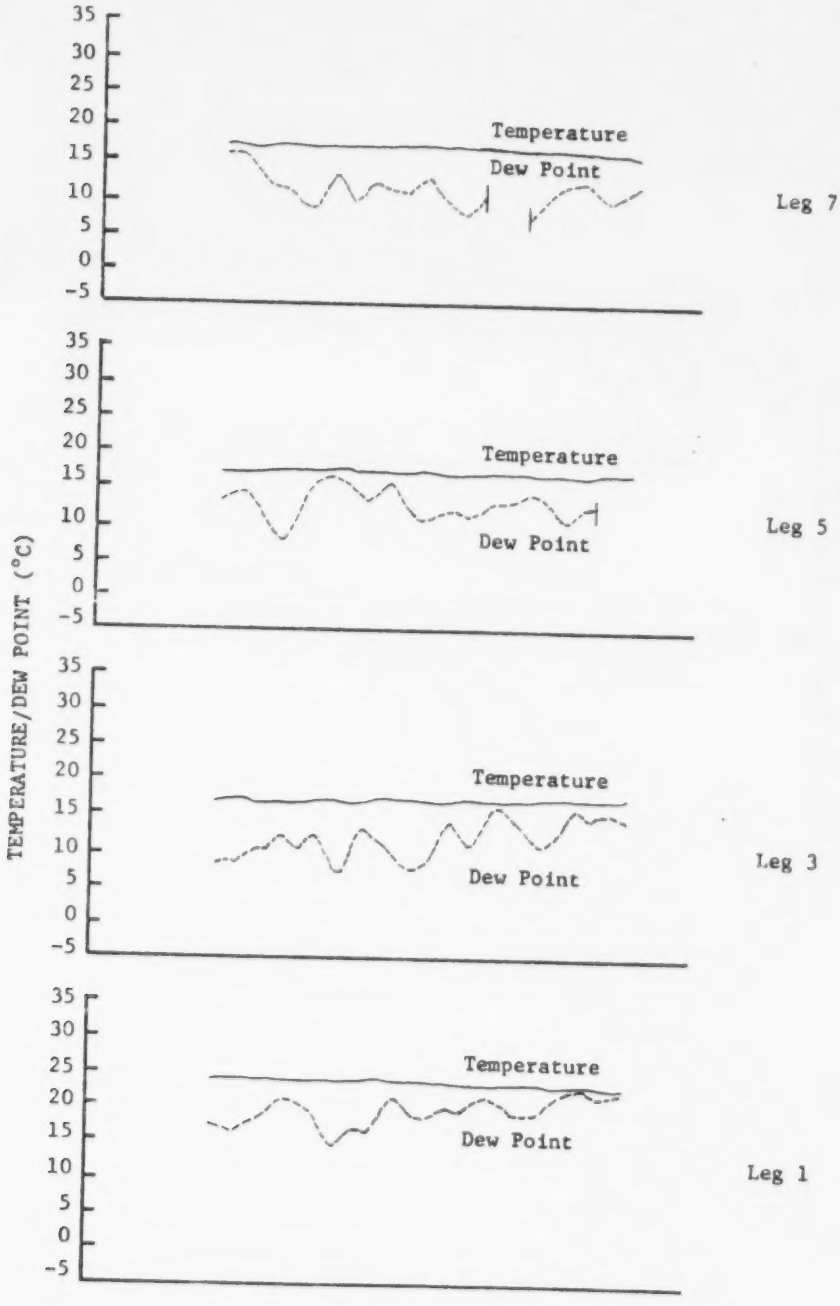

Figure 4.12. Tulsa Flight TO3, August 25, 1977. Horizontal Traverse, Temperature and Dewpoint.

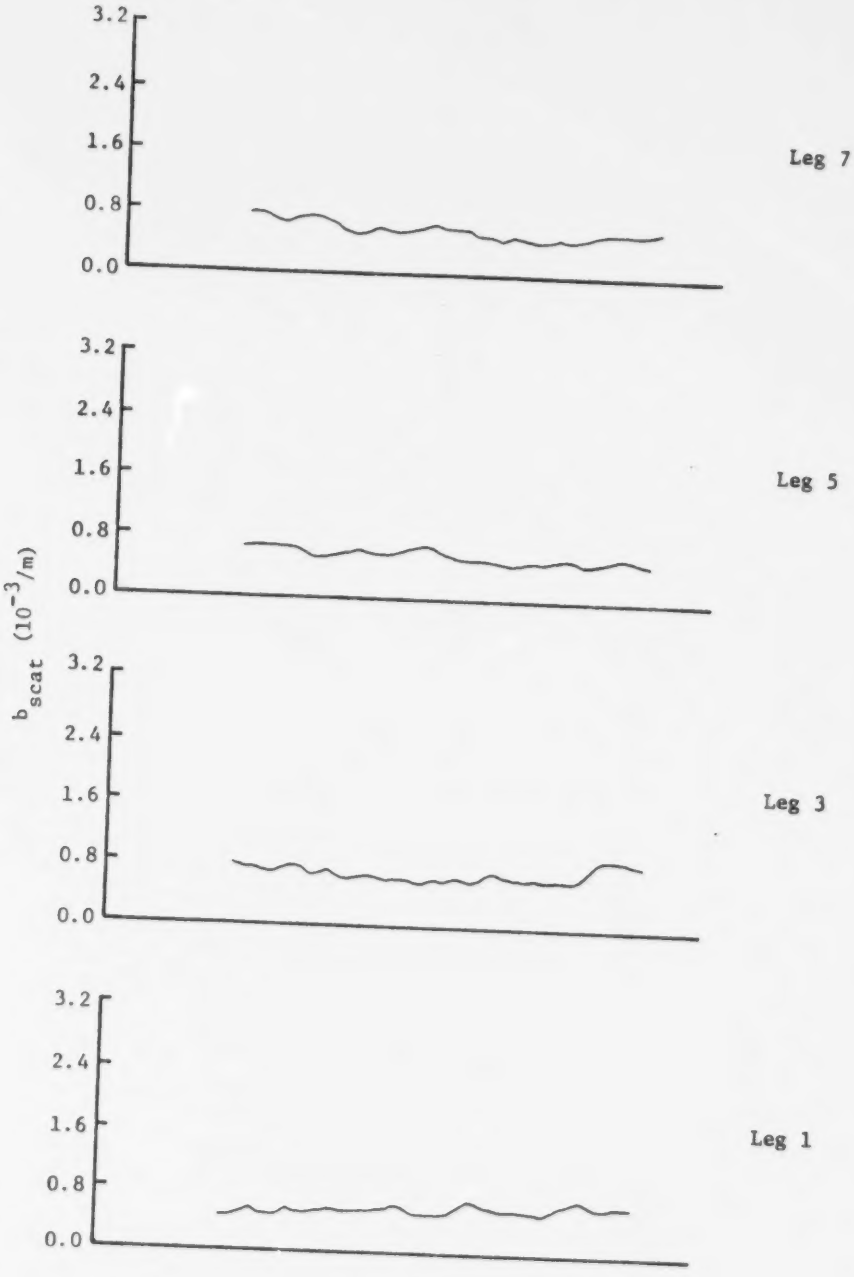

Figure 4.13. Tulsa Flight T03, August 25, 1977. Horizontal Traverse, b_{scat}.

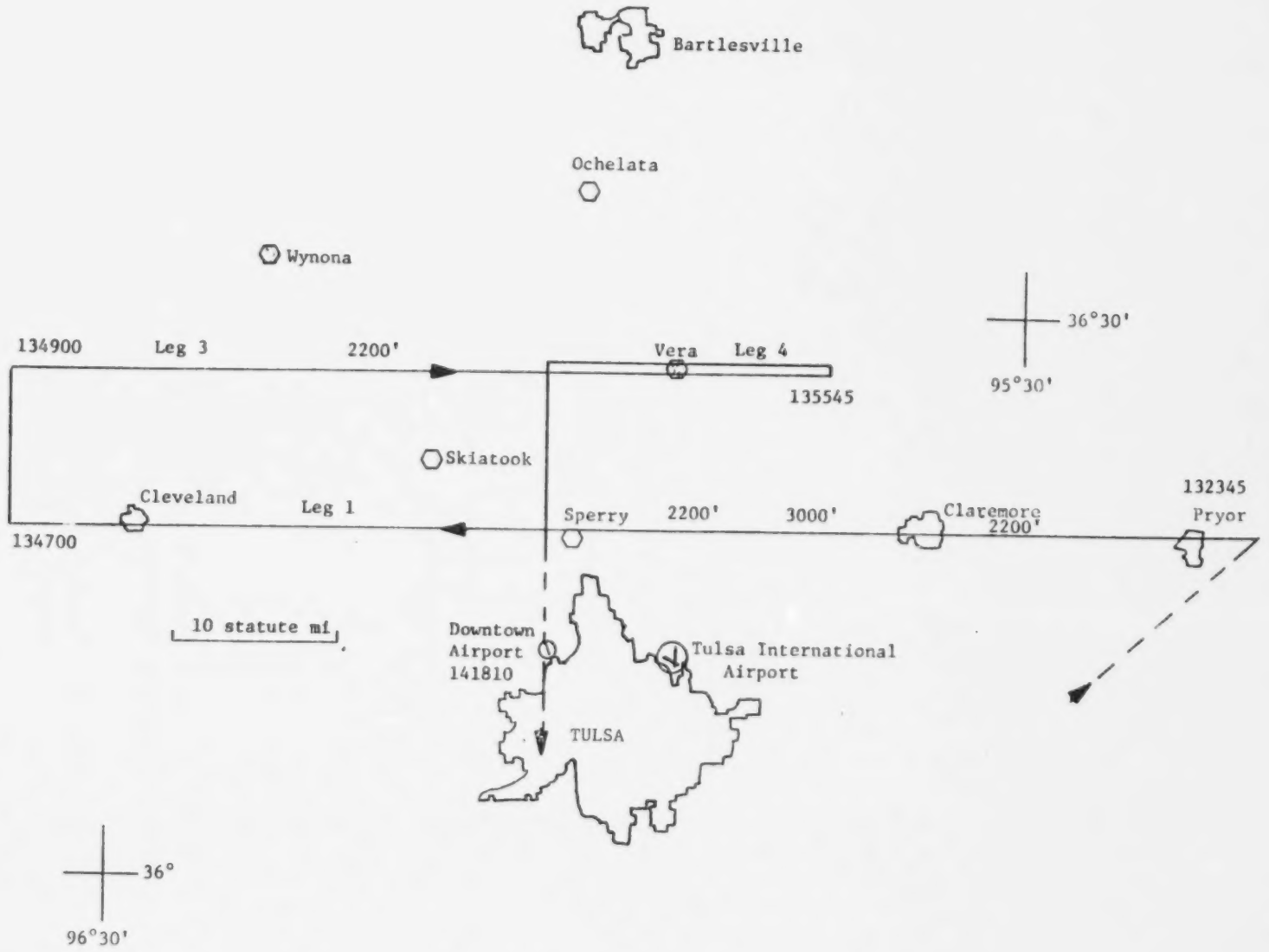

Figure 4.14. Tulsa Flight TO4, August 25, 1977, PM Transport Pattern.

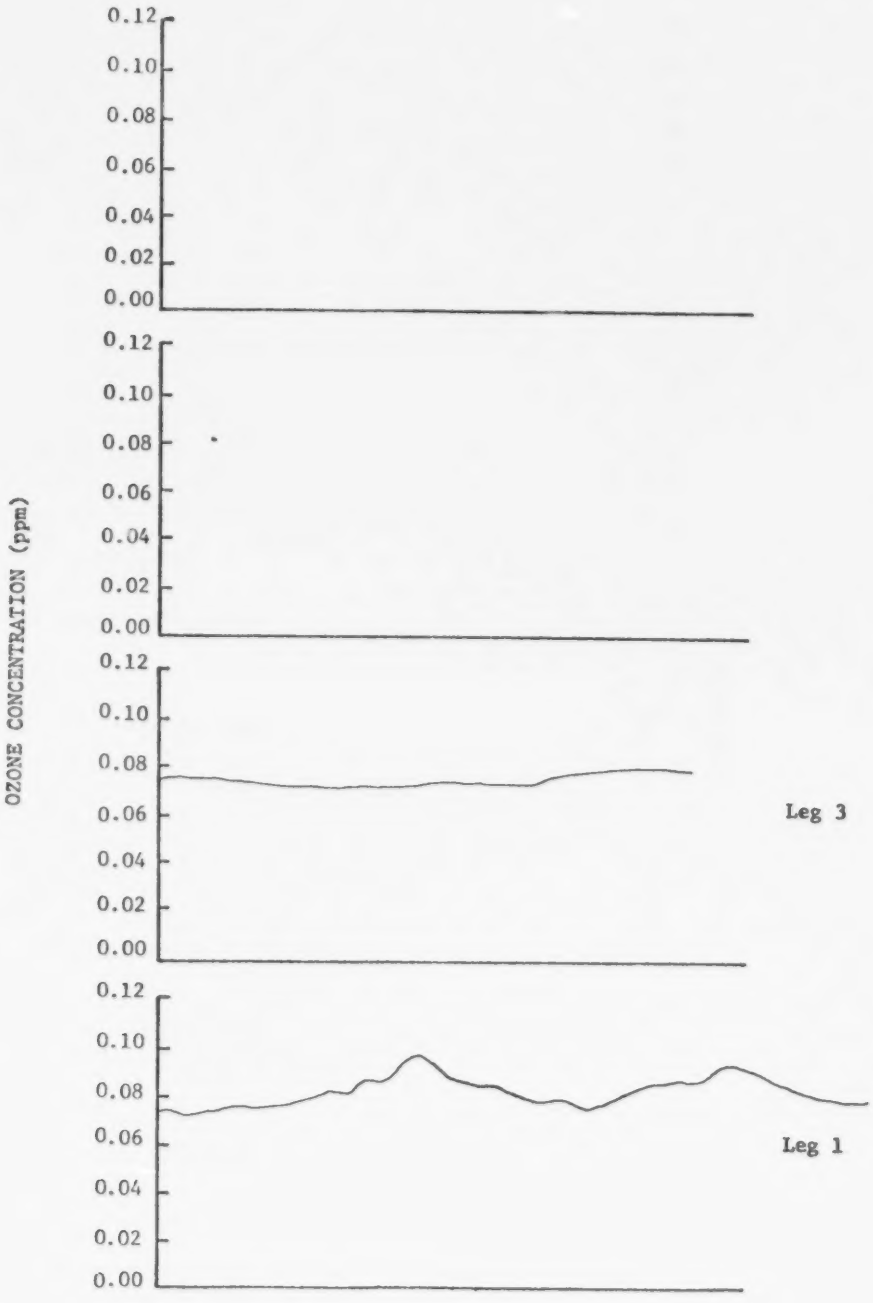

Figure 4.15. Tulsa Flight TO4, August 25, 1977. Horizontal Traverse, Ozone Concentration.

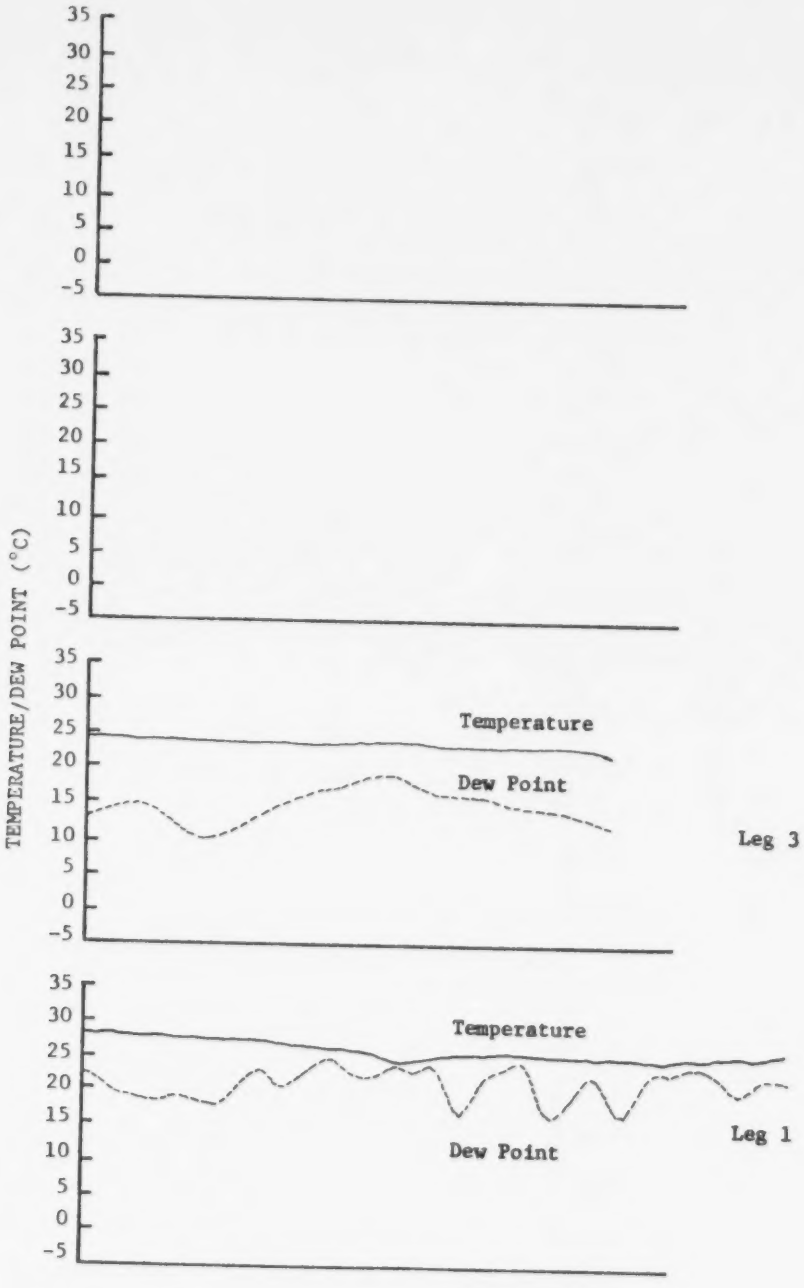

Figure 4.16. Tulsa Flight T04, August 25, 1977. Horizontal Traverse, Temperature and Dewpoint.

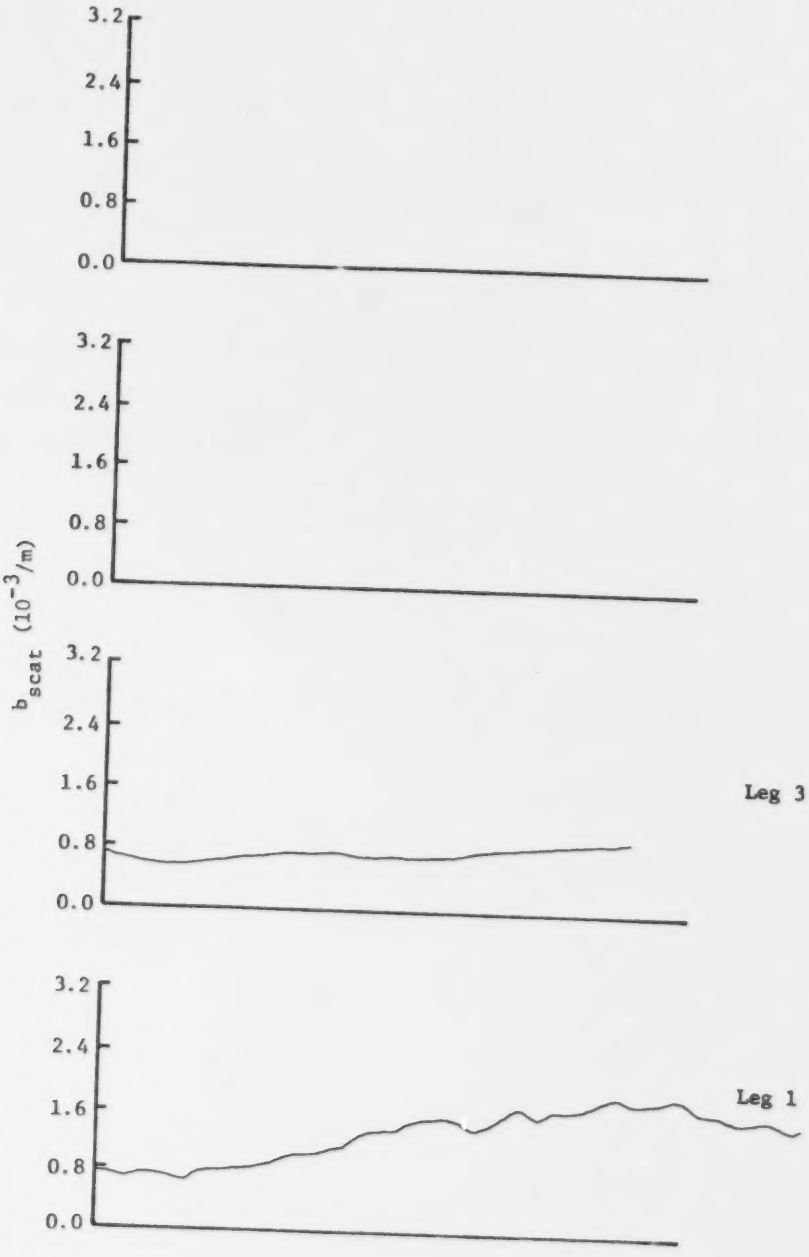

Figure 4.17. Tulsa Flight T04, August 15, 1977. Horizontal Traverse, b_{scat}.

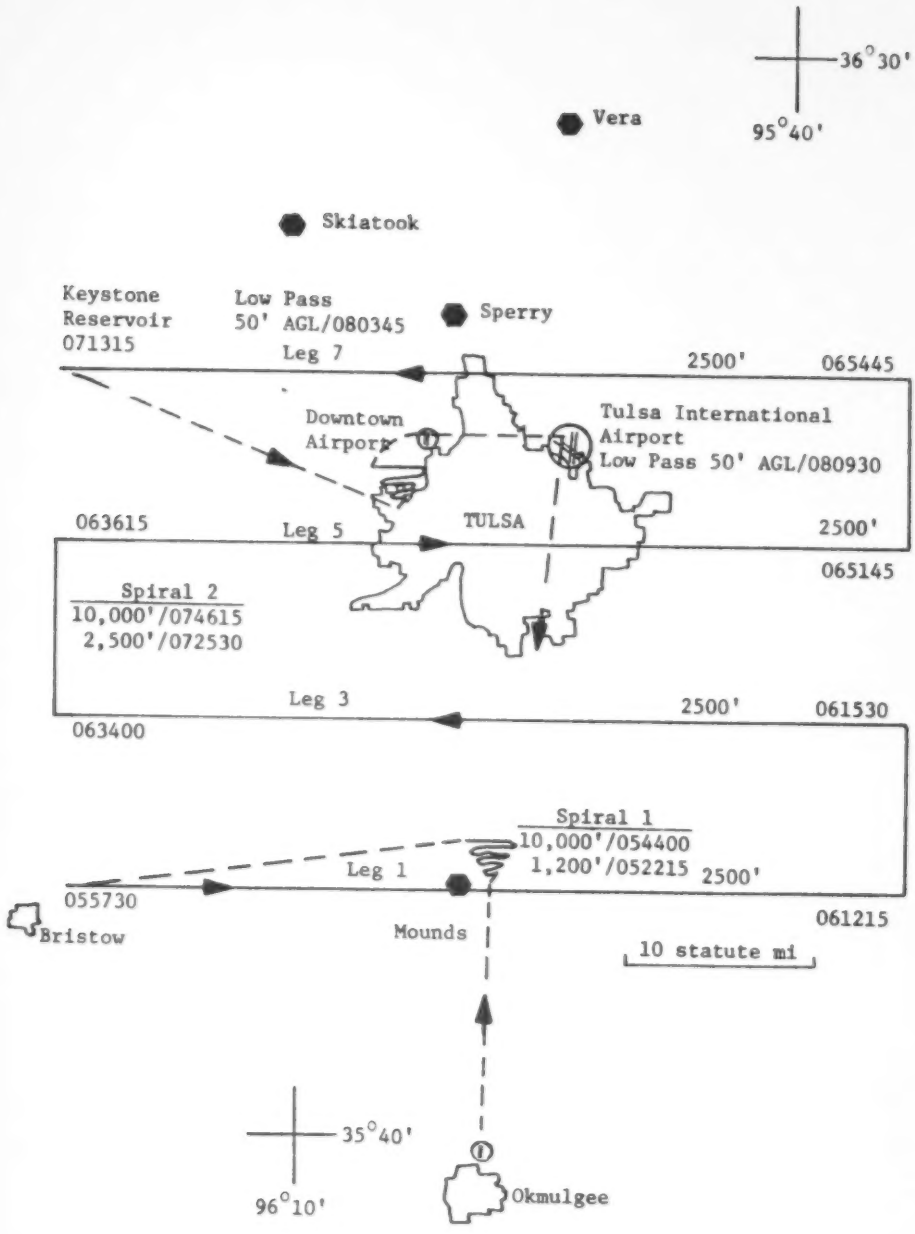

Figure 4.18. Tulsa Flight T05, August 26, 1977. AM Transport Pattern.

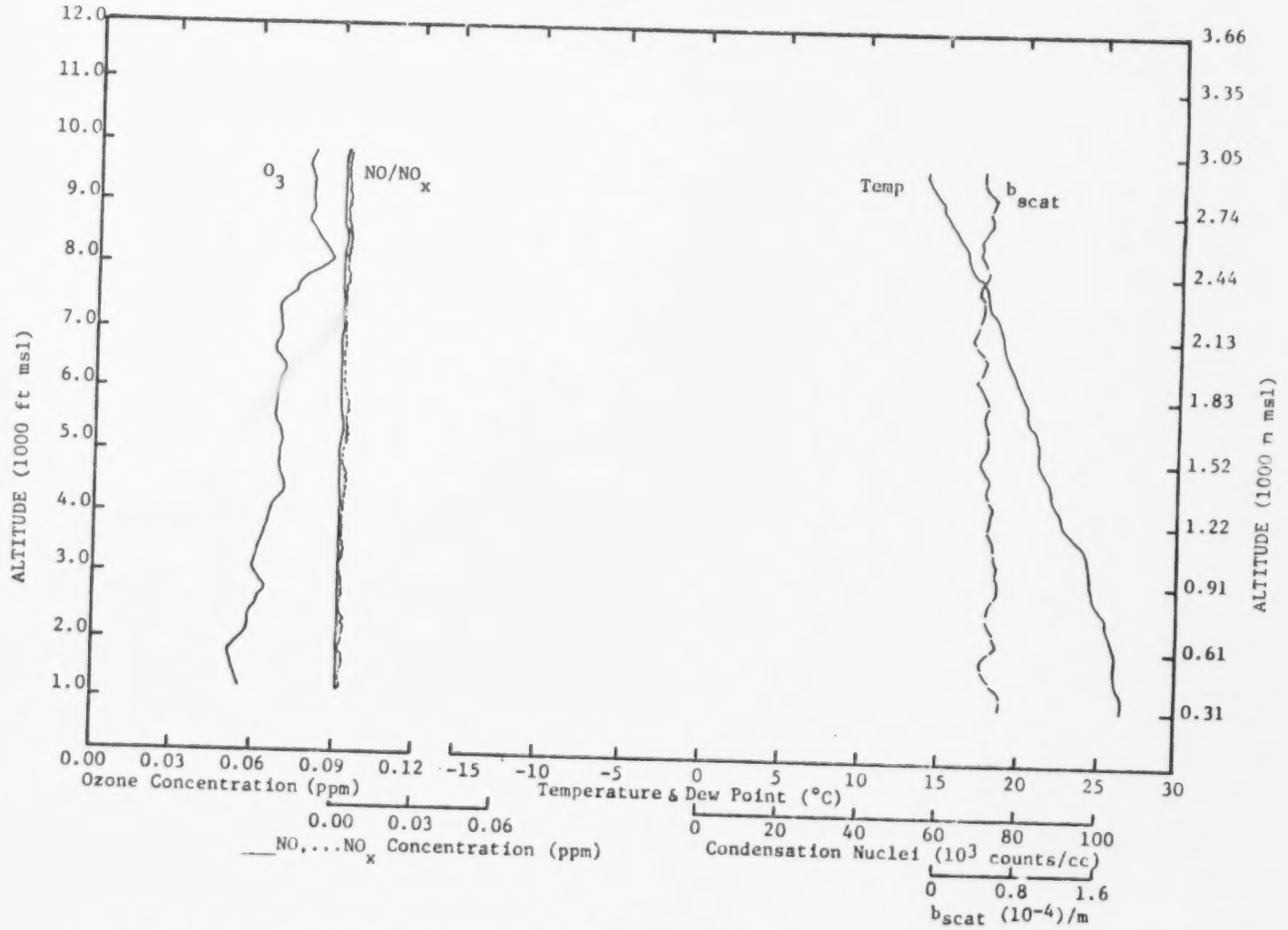

Figure 4.19. Tulsa Flight T05, August 26, 1977. Vertical Spiral Liberty Mounds.

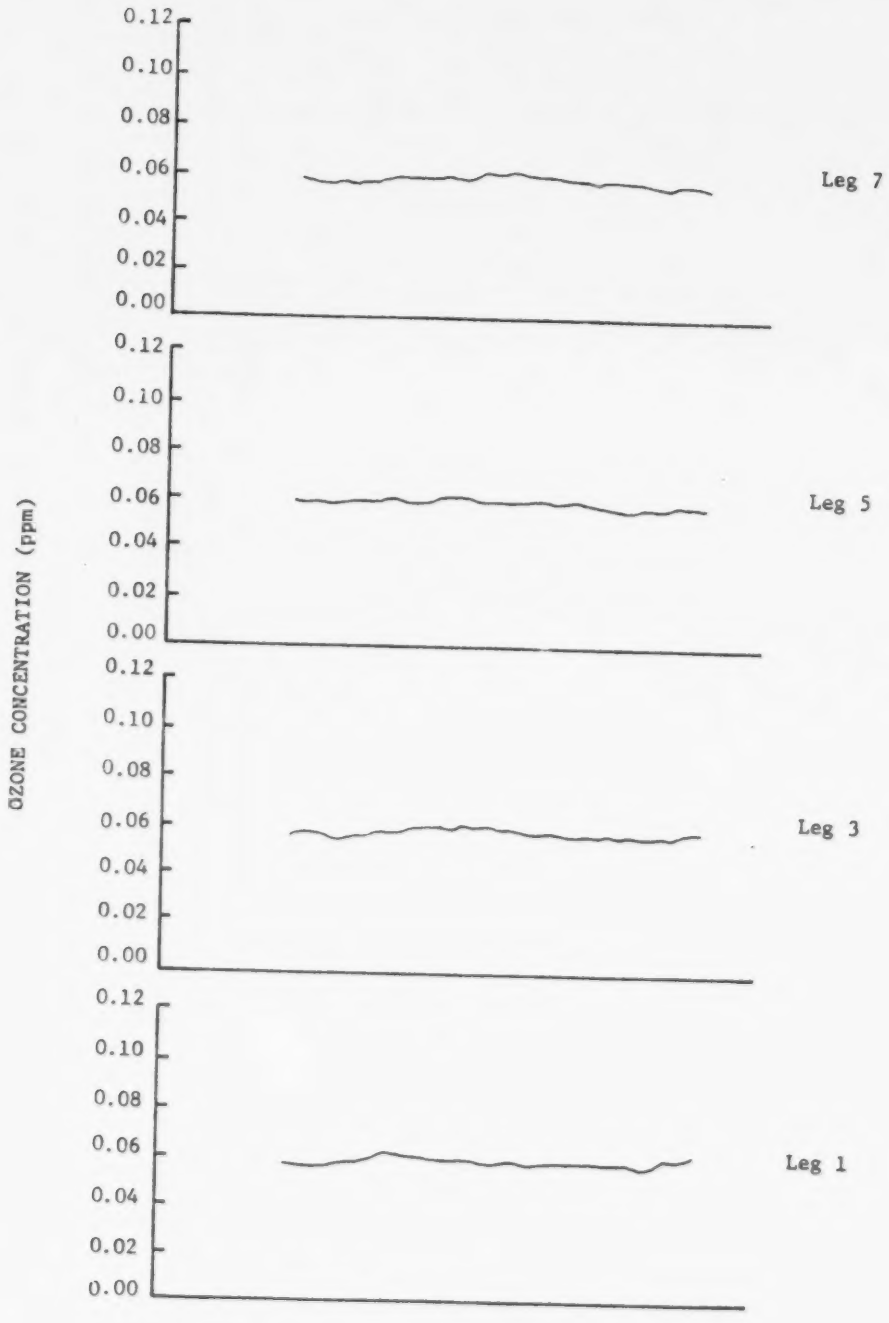

Figure 4.20. Tulsa Flight T05, August 26, 1977. Horizontal Traverse, Ozone Concentration.

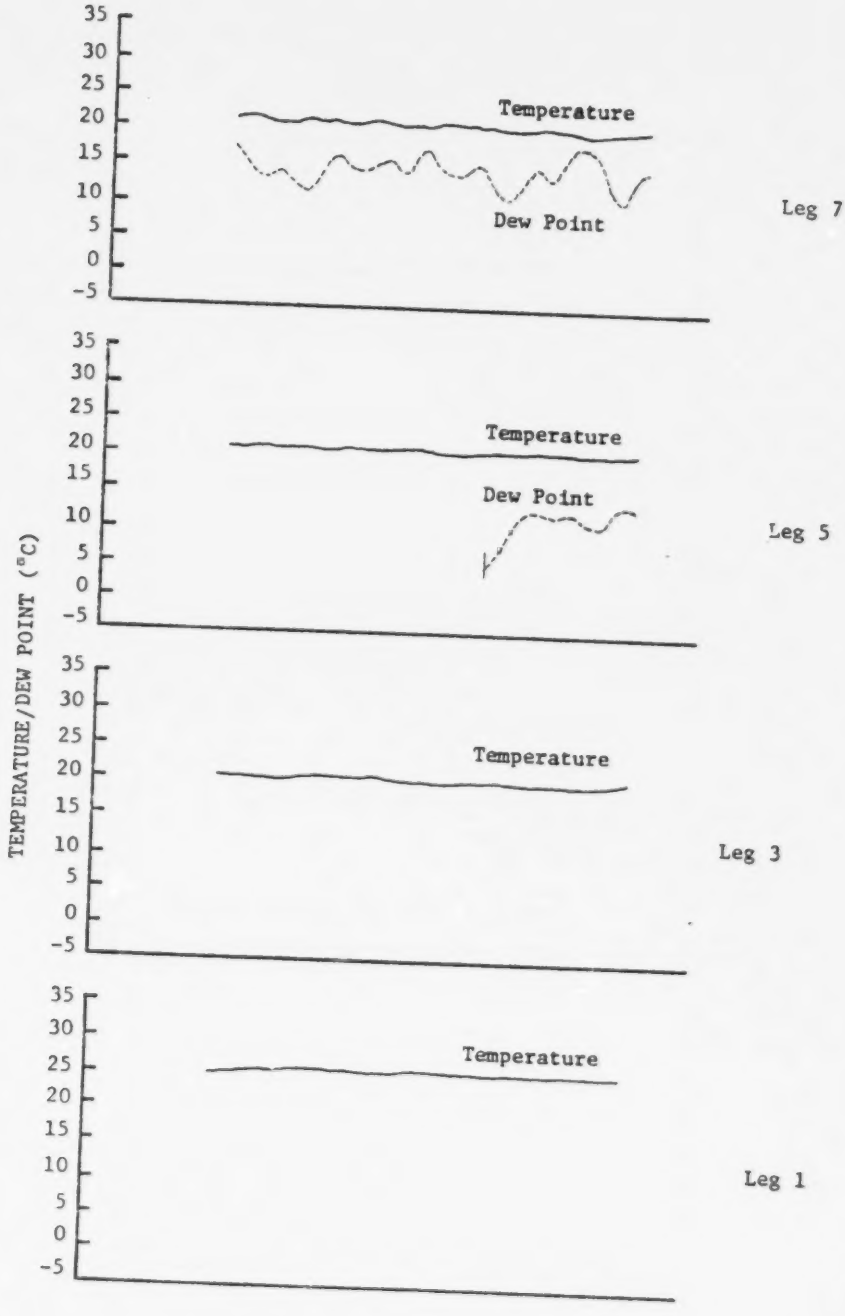

Figure 4.21. Tulsa Flight T05, August 26, 1977. Horizontal Traverse, Temperature and Dewpoint.

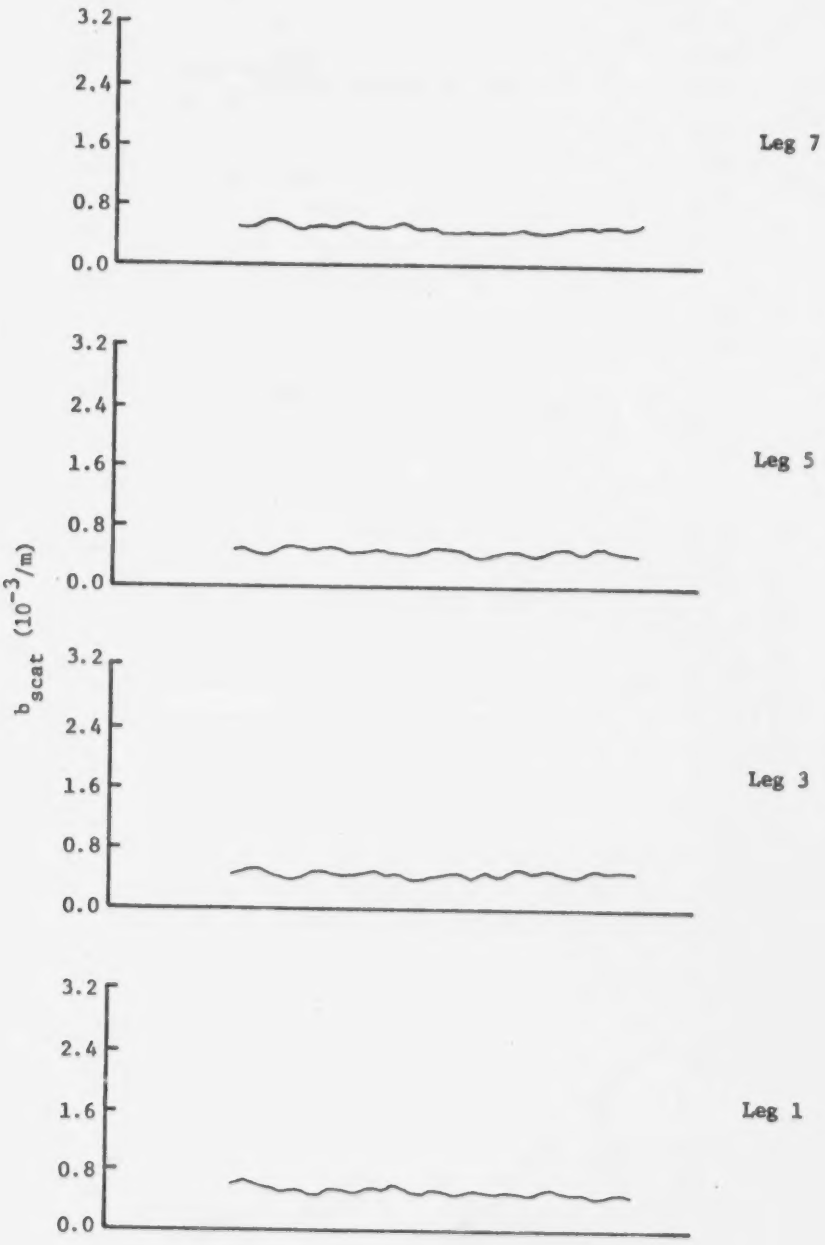

Figure 4.22. Tulsa Flight T05, August 26, 1977. Horizontal Traverse, b_{scat}.

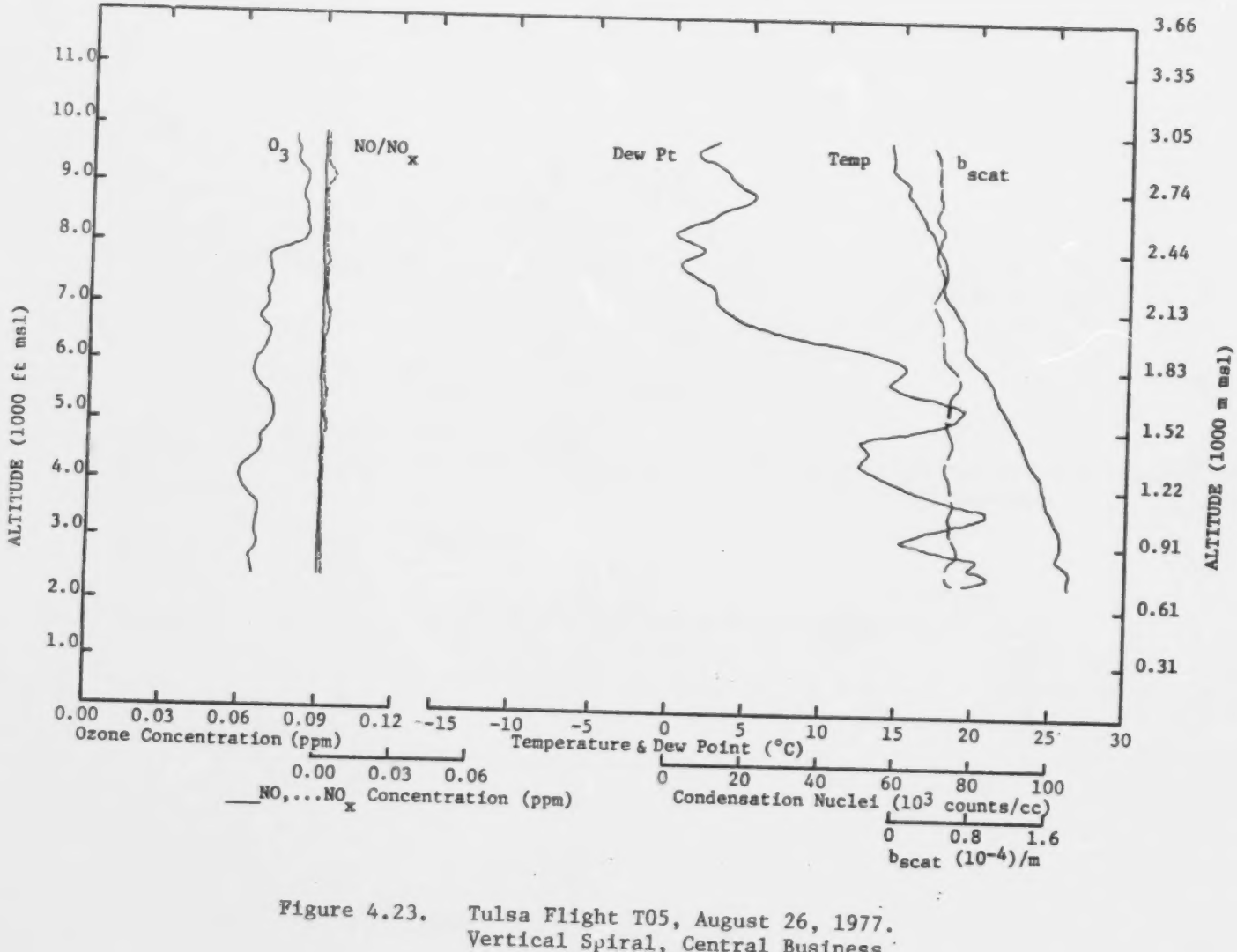

Figure 4.23. Tulsa Flight T05, August 26, 1977. Vertical Spiral, Central Business District.

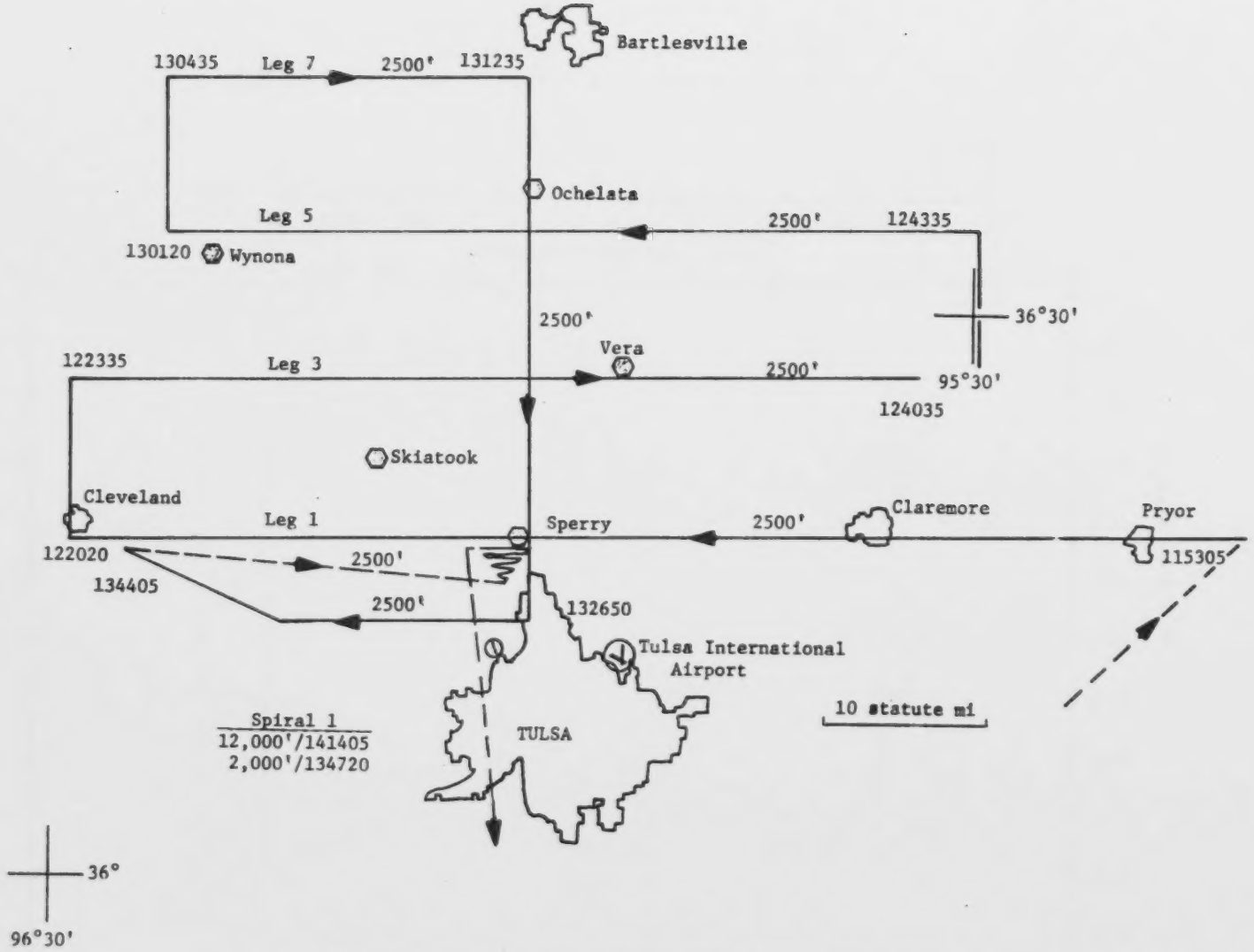

Figure 4.24. Tulsa Flight TO6, August 26, 1977. PM Transport Pattern.

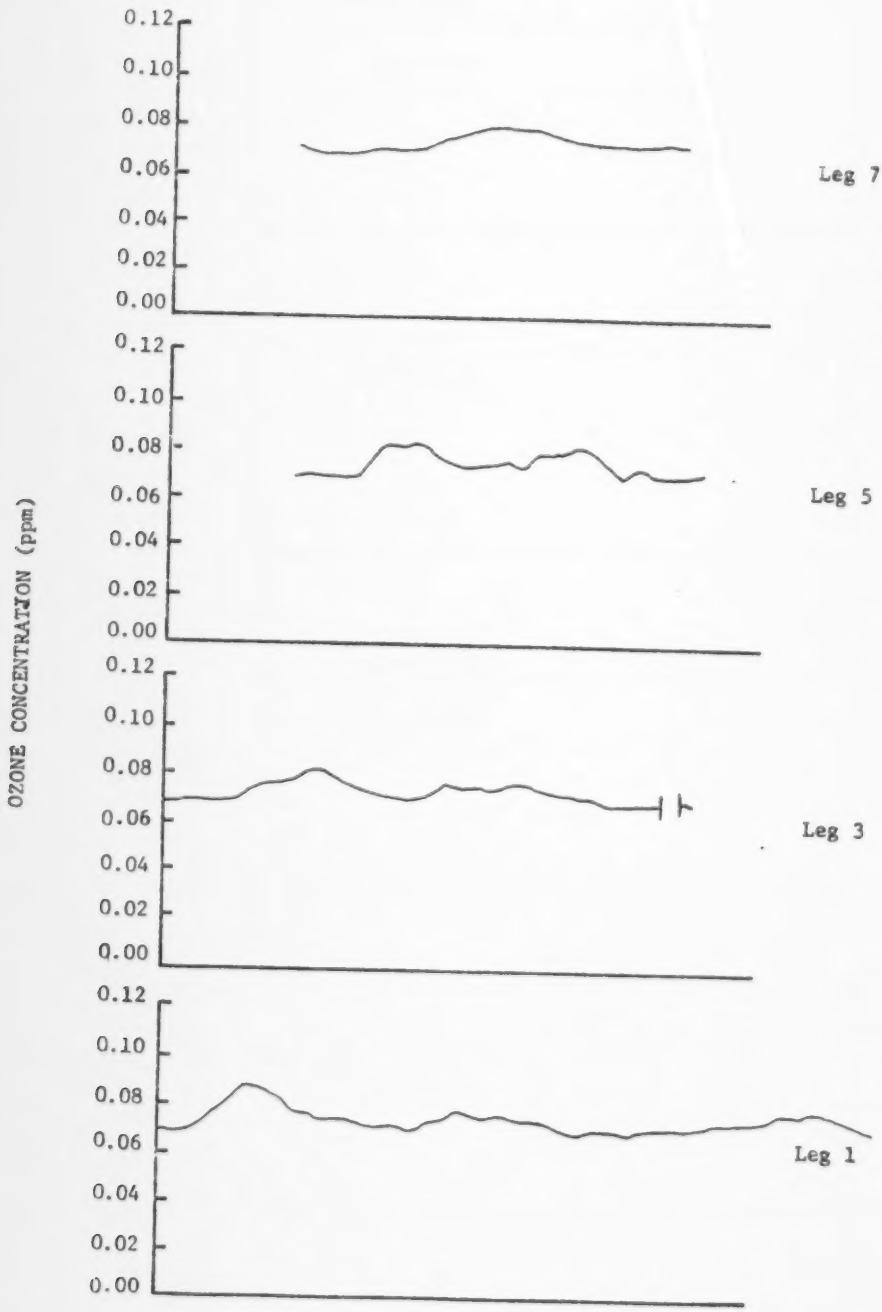

Figure 4.25. Tulsa Flight T06, August 26, 1977. Horizontal Traverse, Ozone Concentration.

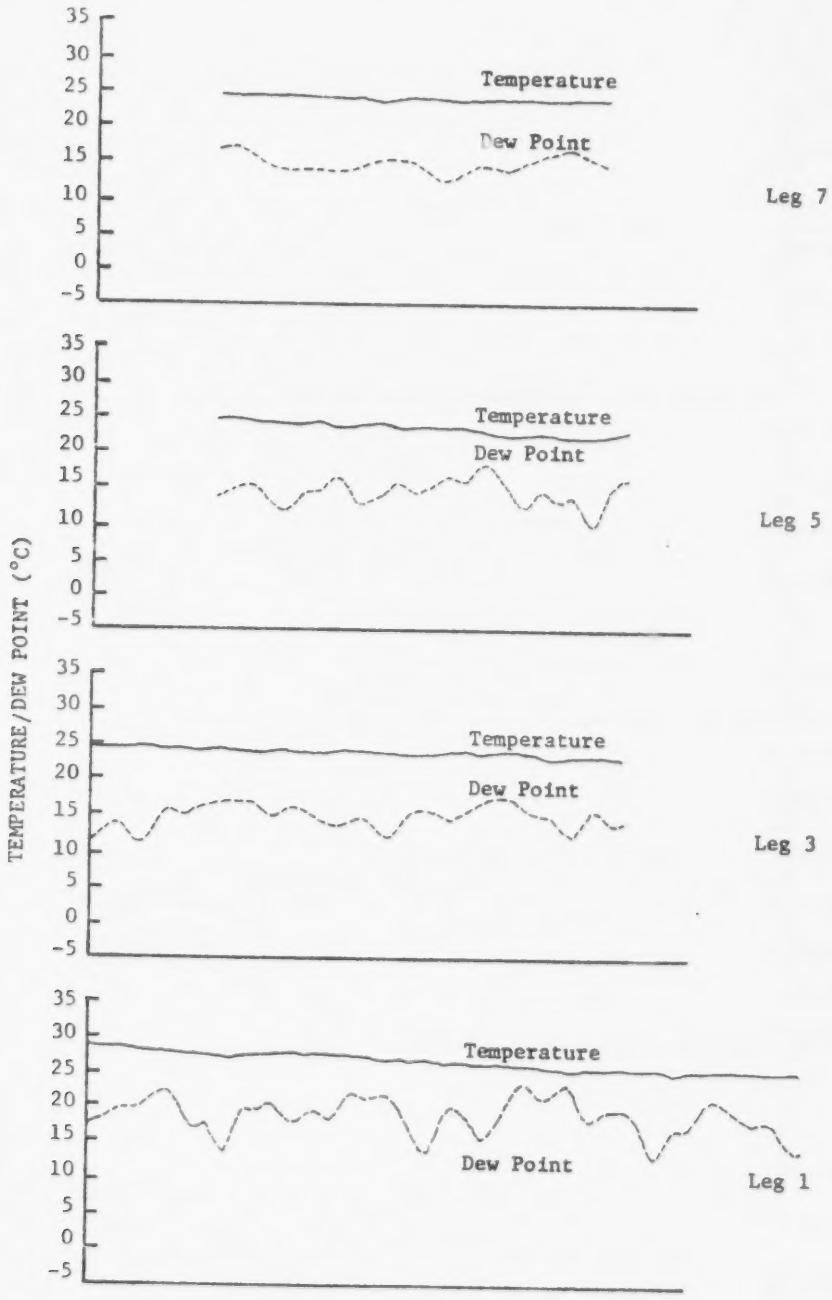

Figure 4.26. Tulsa Flight T06, August 26, 1977. Horizontal Traverse, Temperature and Dewpoint.

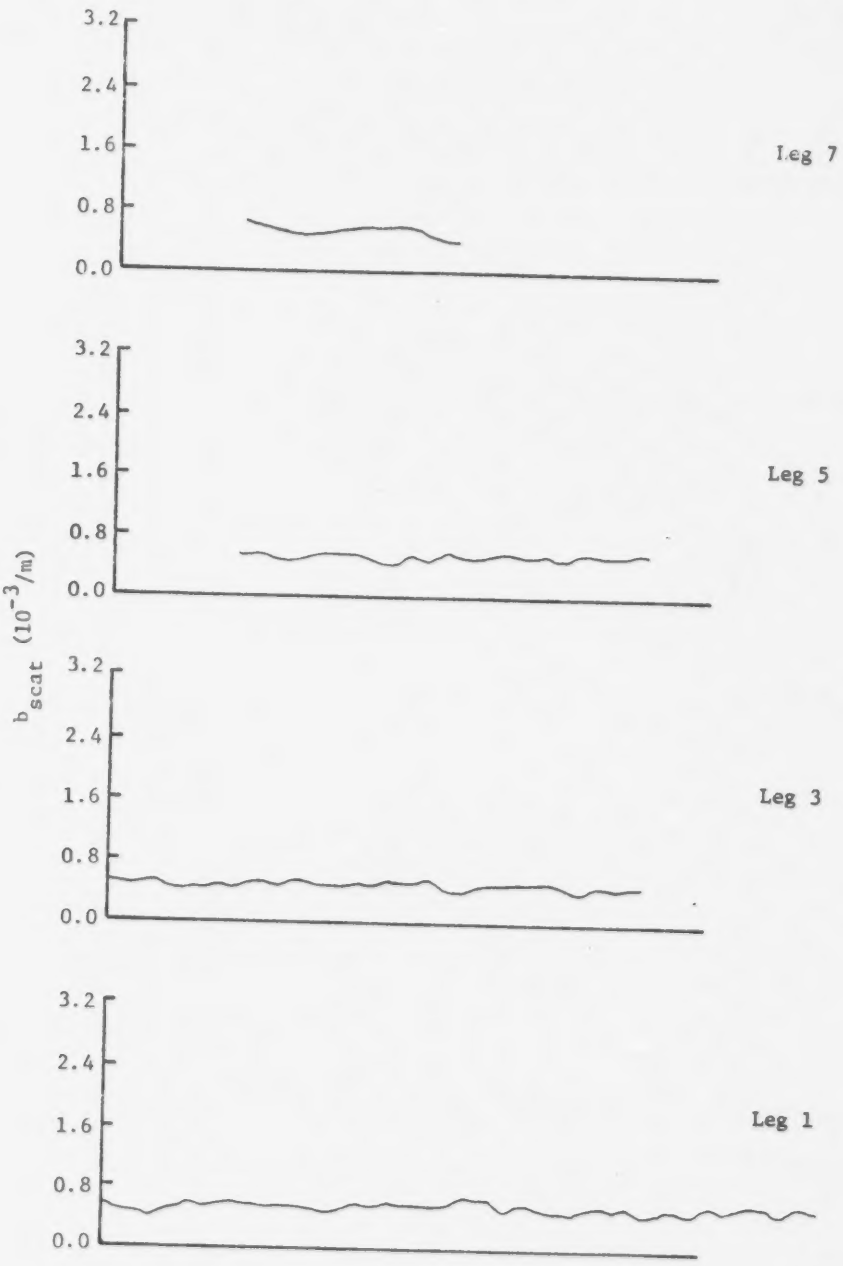

Figure 4.27. Tulsa Flight T06, August 26, 1977. Horizontal Traverse, b_{scat}.

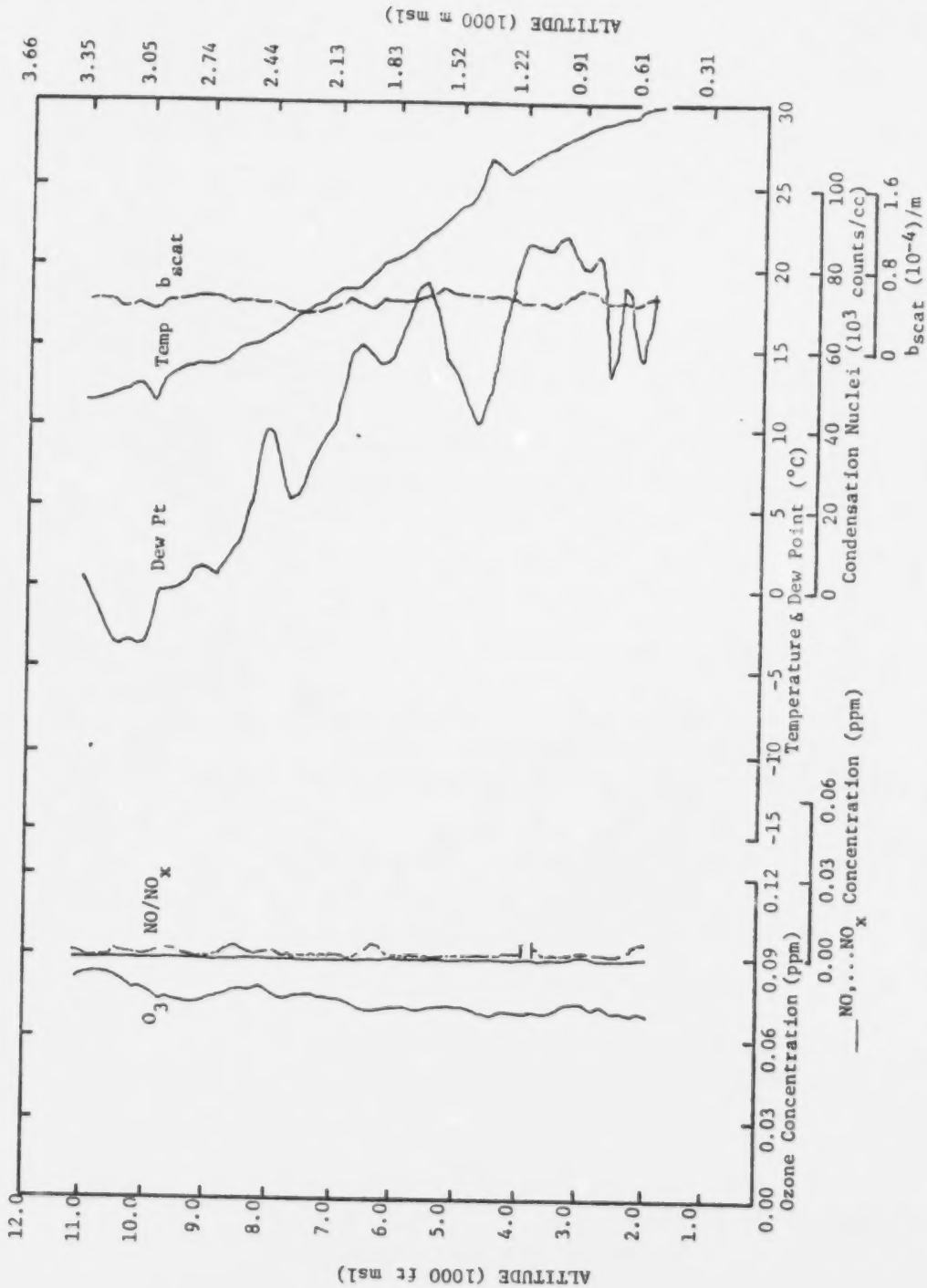

Figure 4.28. Tulsa Flight T06, August 26, 1977. Vertical Spiral Sperry,

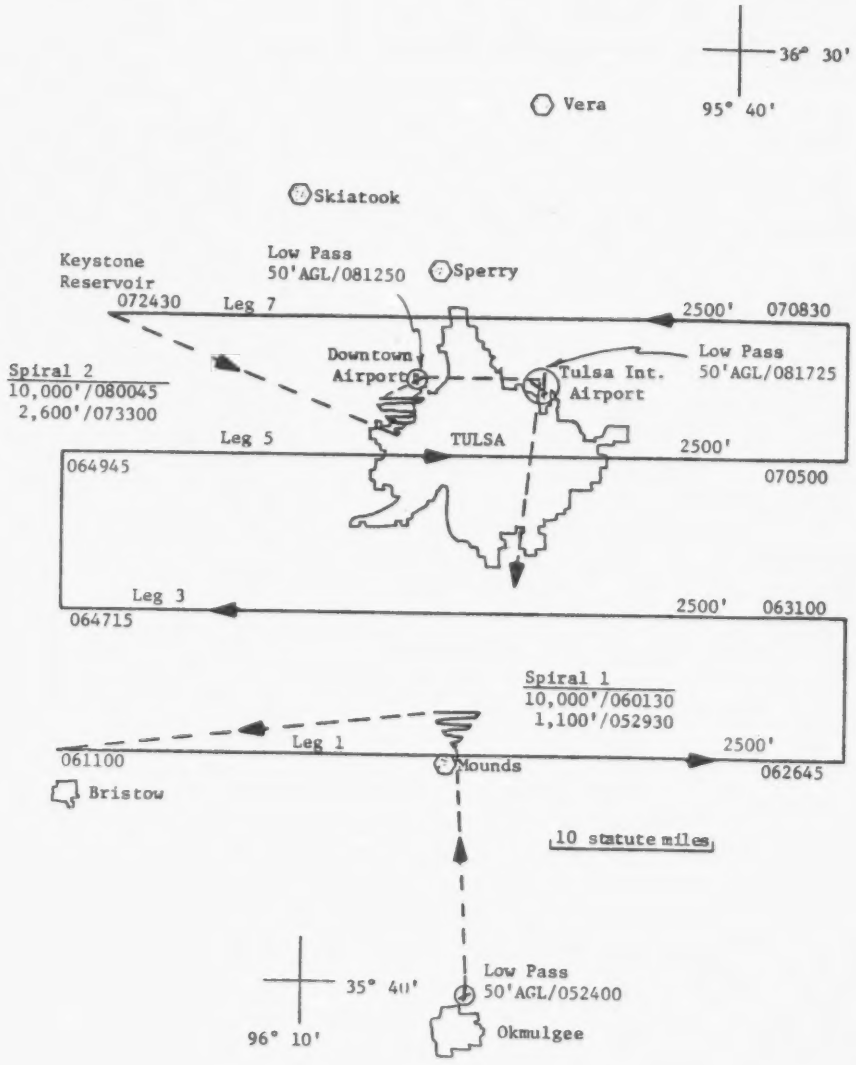

Figure 4.29. Tulsa Flight T09, September 2, 1977. AM Transport Pattern.

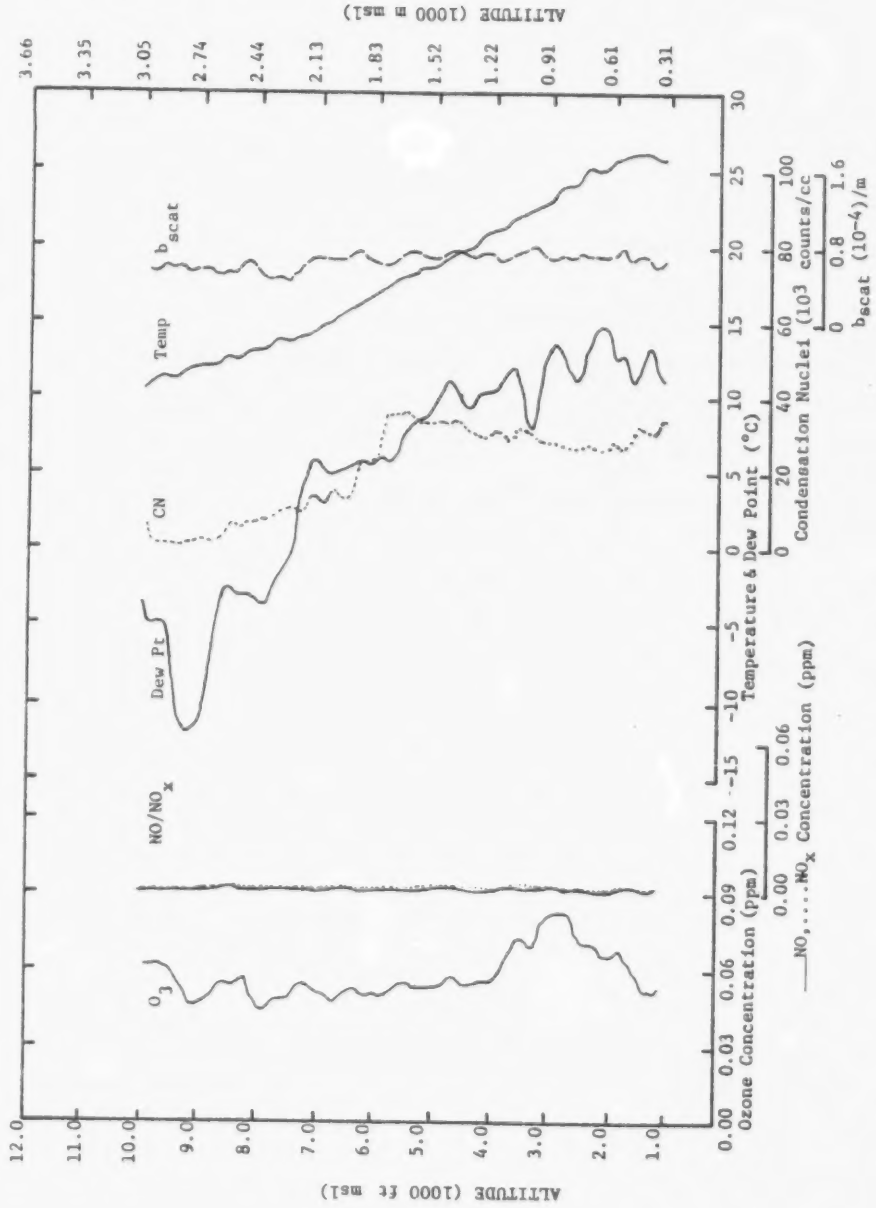

Figure 4.30. Tulsa Flight T09, September 2, 1977. Vertical Spiral, Liberty Mounds.

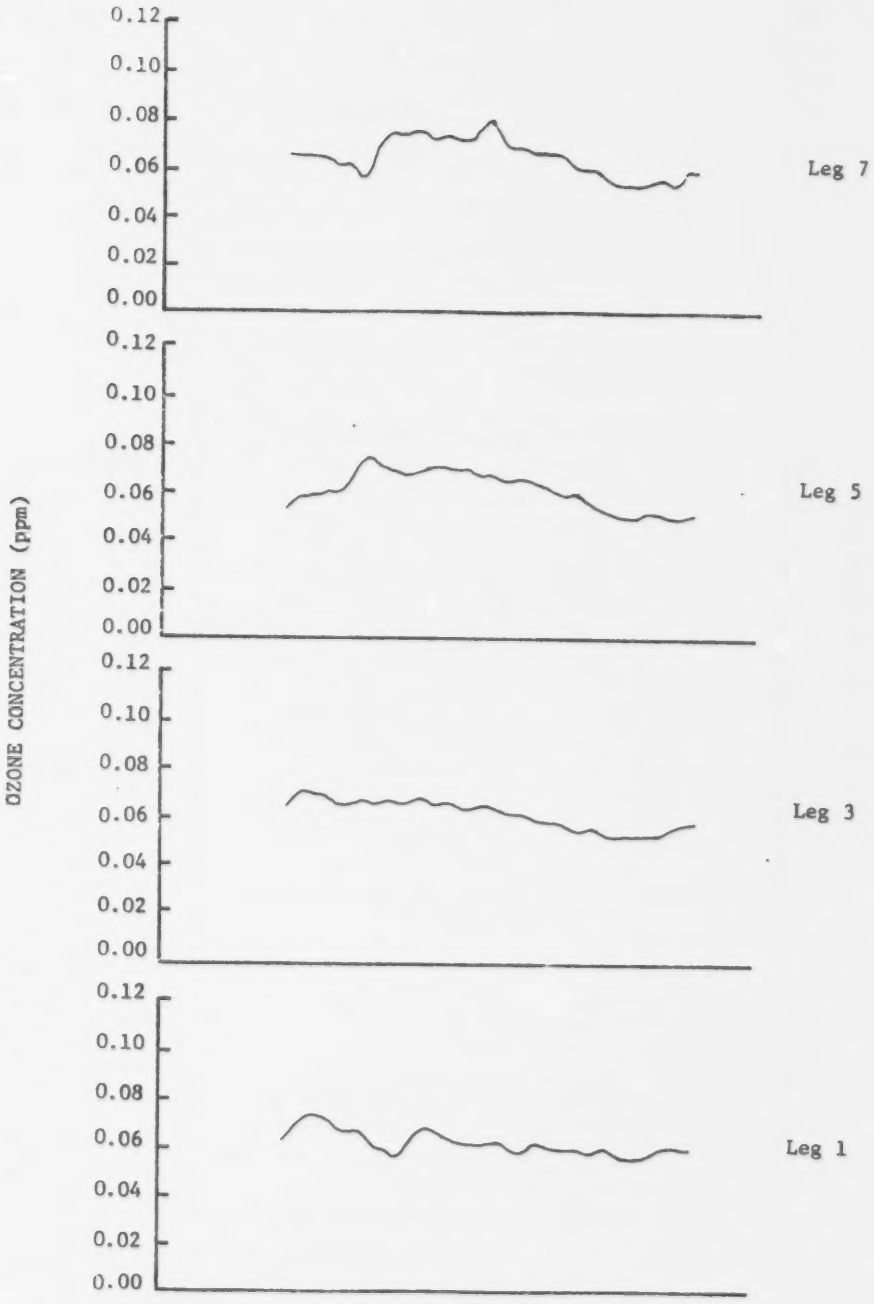

Figure 4.31. Tulsa Flight T09, September 2, 1977. Horizontal Traverse, Ozone Concentration.

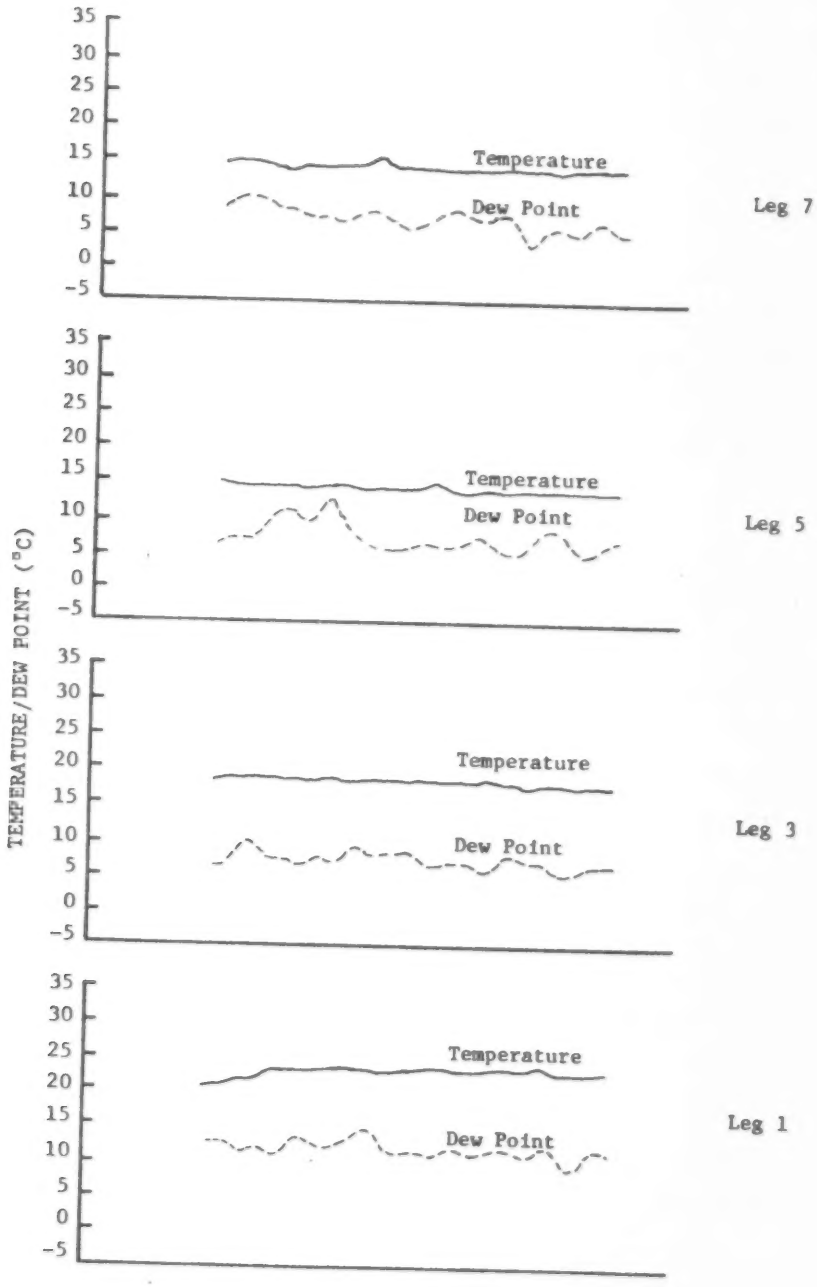

Figure 4.32. Tulsa Flight T09, September 2, 1977. Horizontal Traverse, Temperature and Dewpoint.

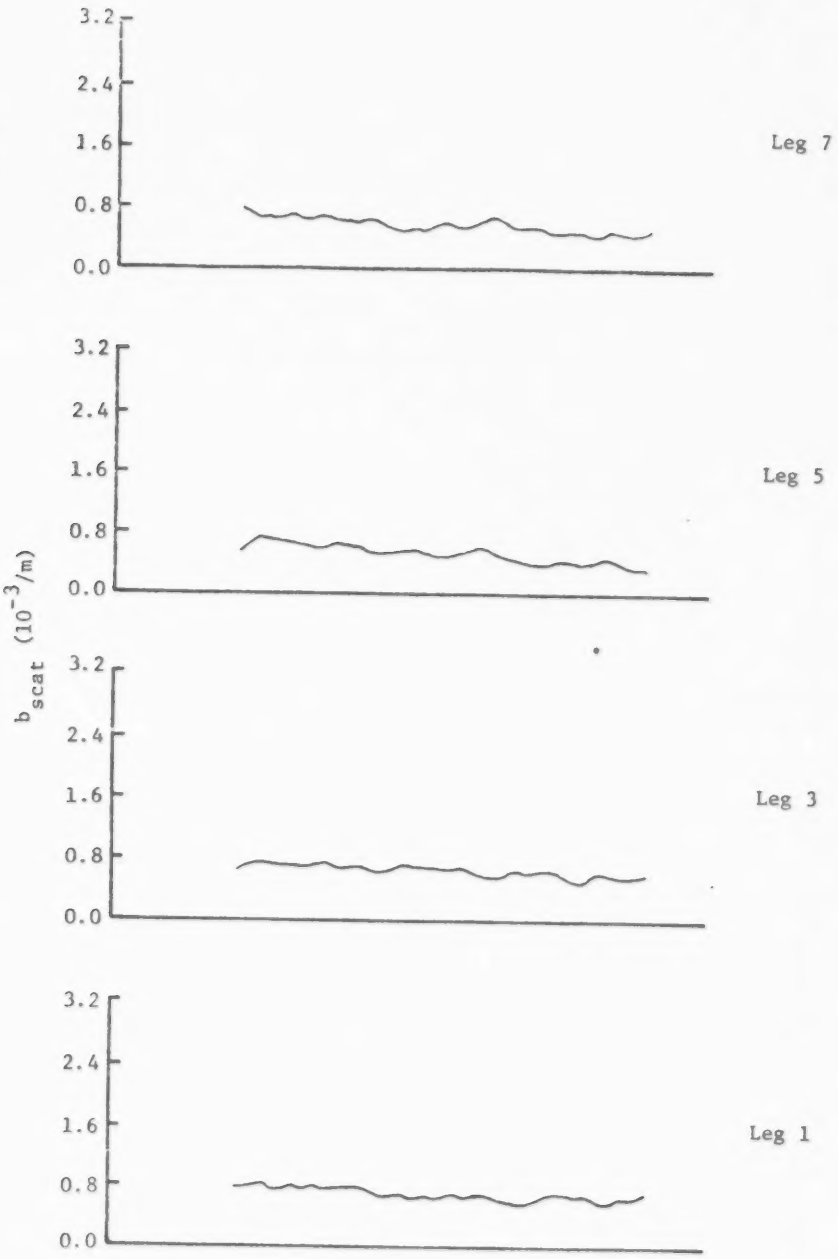

Figure 4.33. Tulsa Flight T09, September 2, 1977. Horizontal Traverse, b_{scat}.

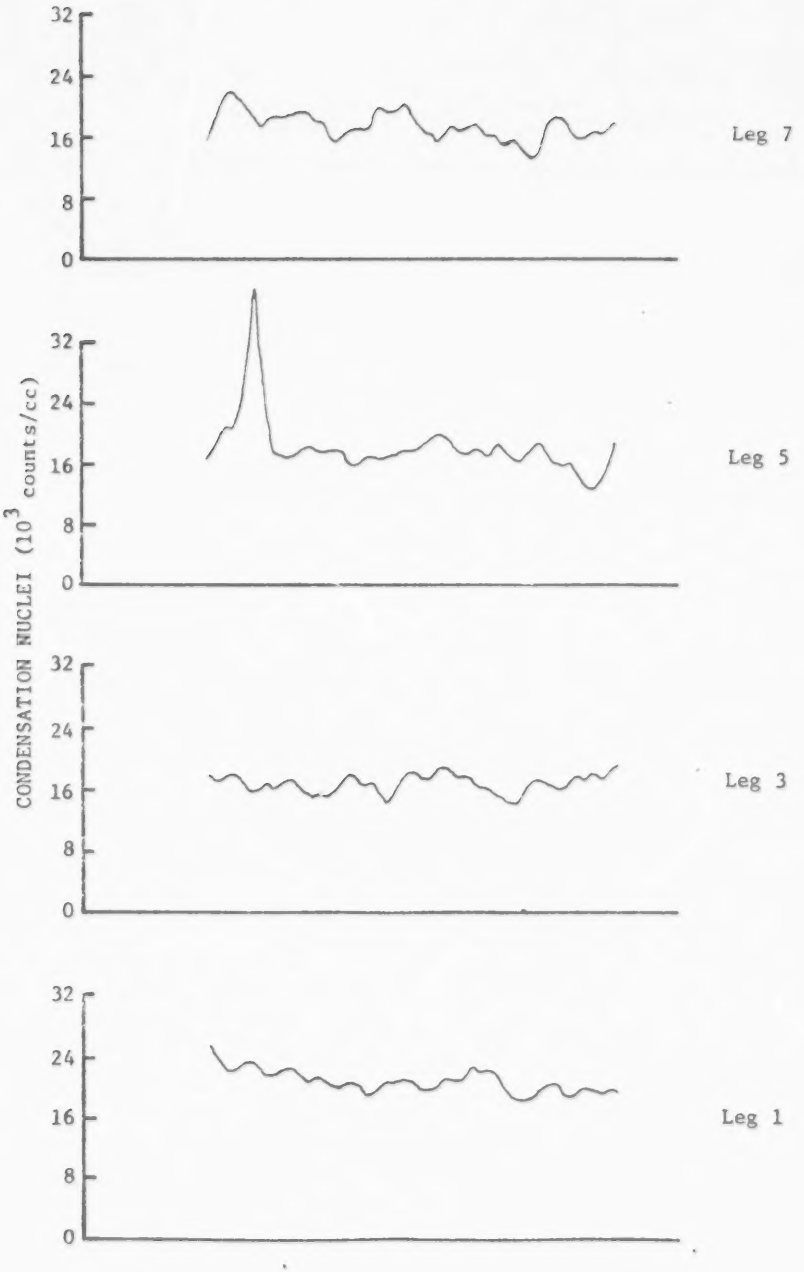

Figure 4.34. Tulsa Flight T09, September 2, 1977. Horizontal Traverse, Condensation Nuclei.

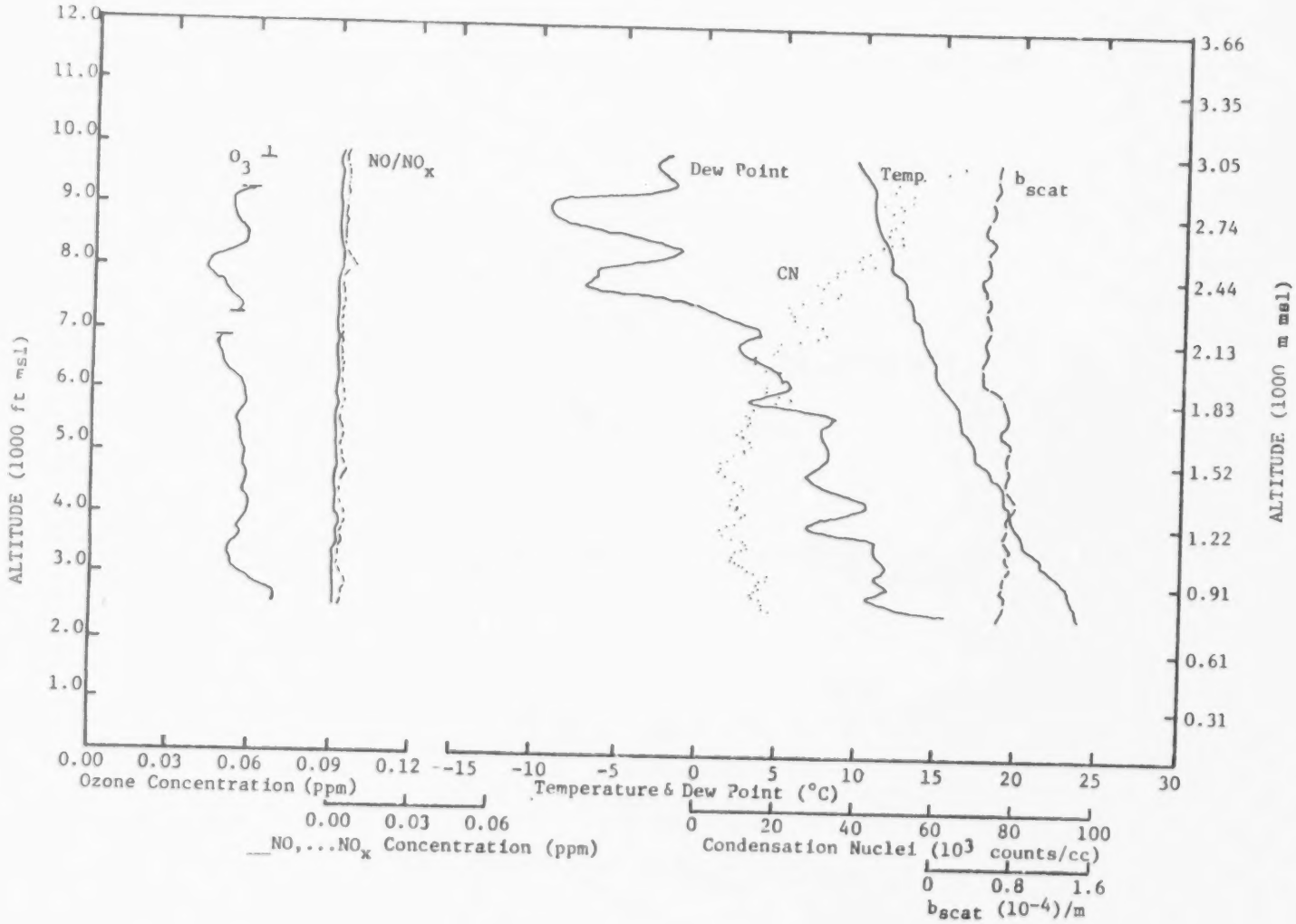

Figure 4.35. Tulsa Flight T09, September 2, 1977. Vertical Spiral, Central Business District.

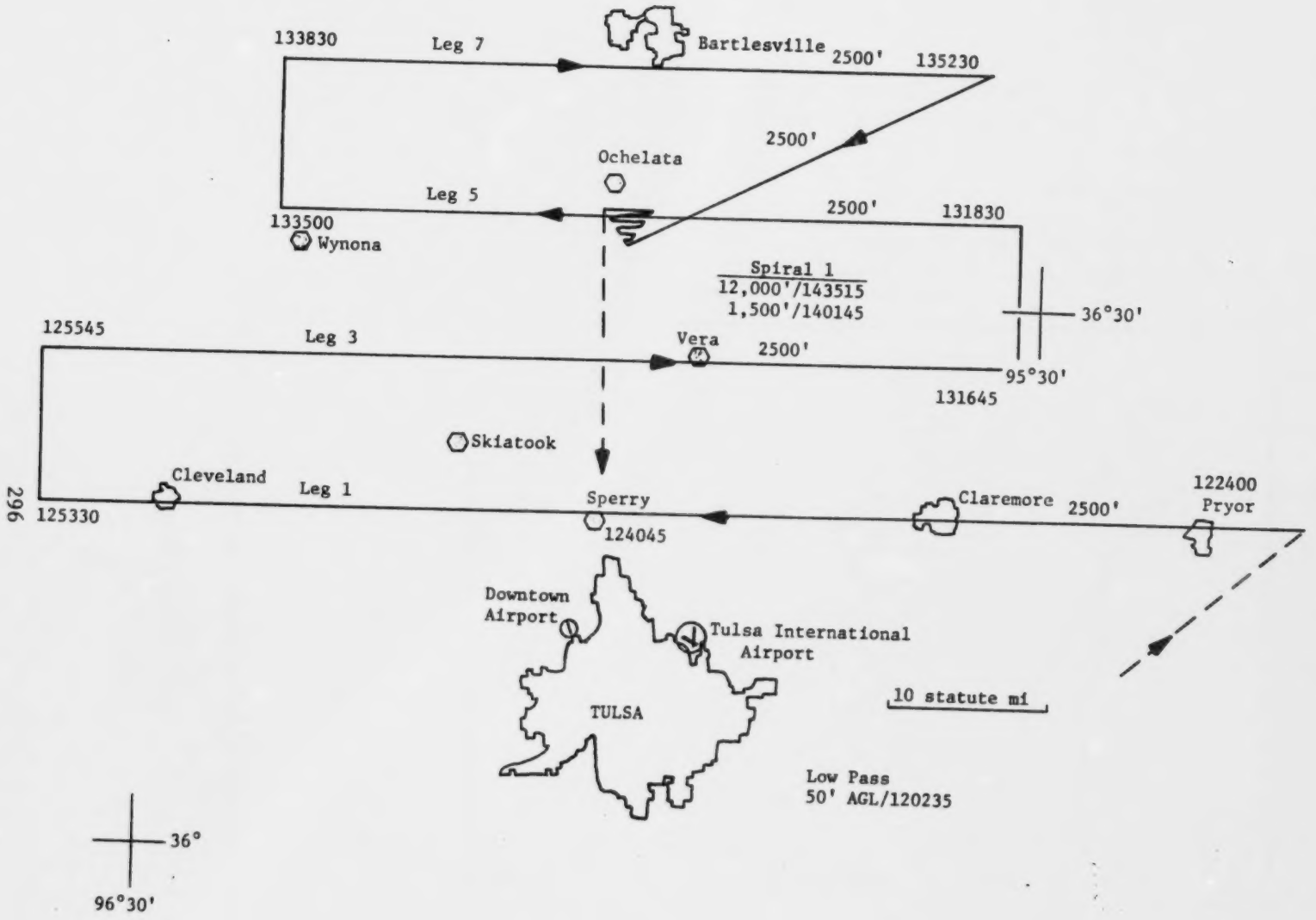

Figure 4.36. Tulsa Flight T10, September 2, 1977. PM Transport Pattern.

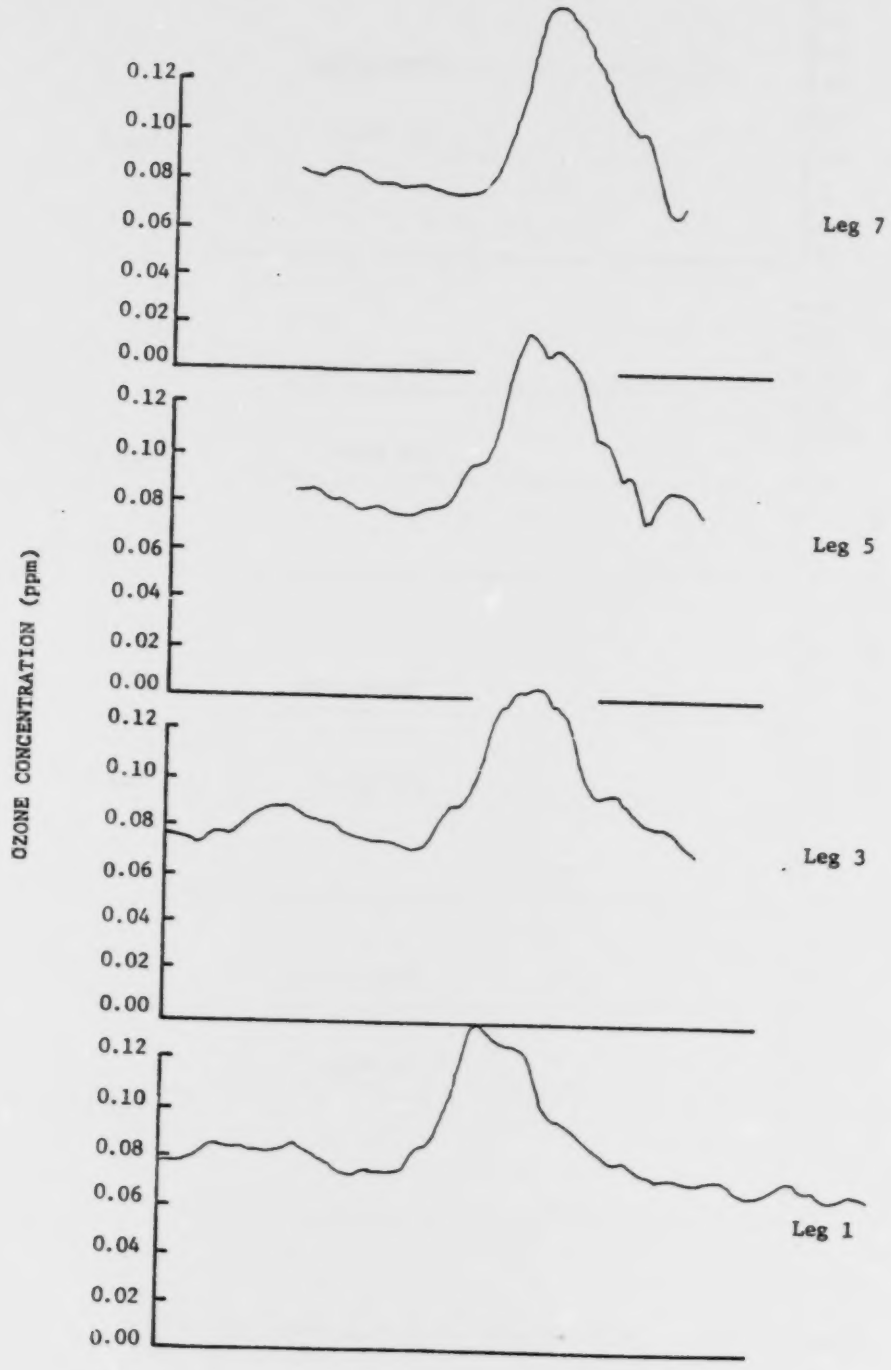

Figure 4.37. Tulsa Flight T10, September 2, 1977. Horizontal Traverse, Ozone Concentration.

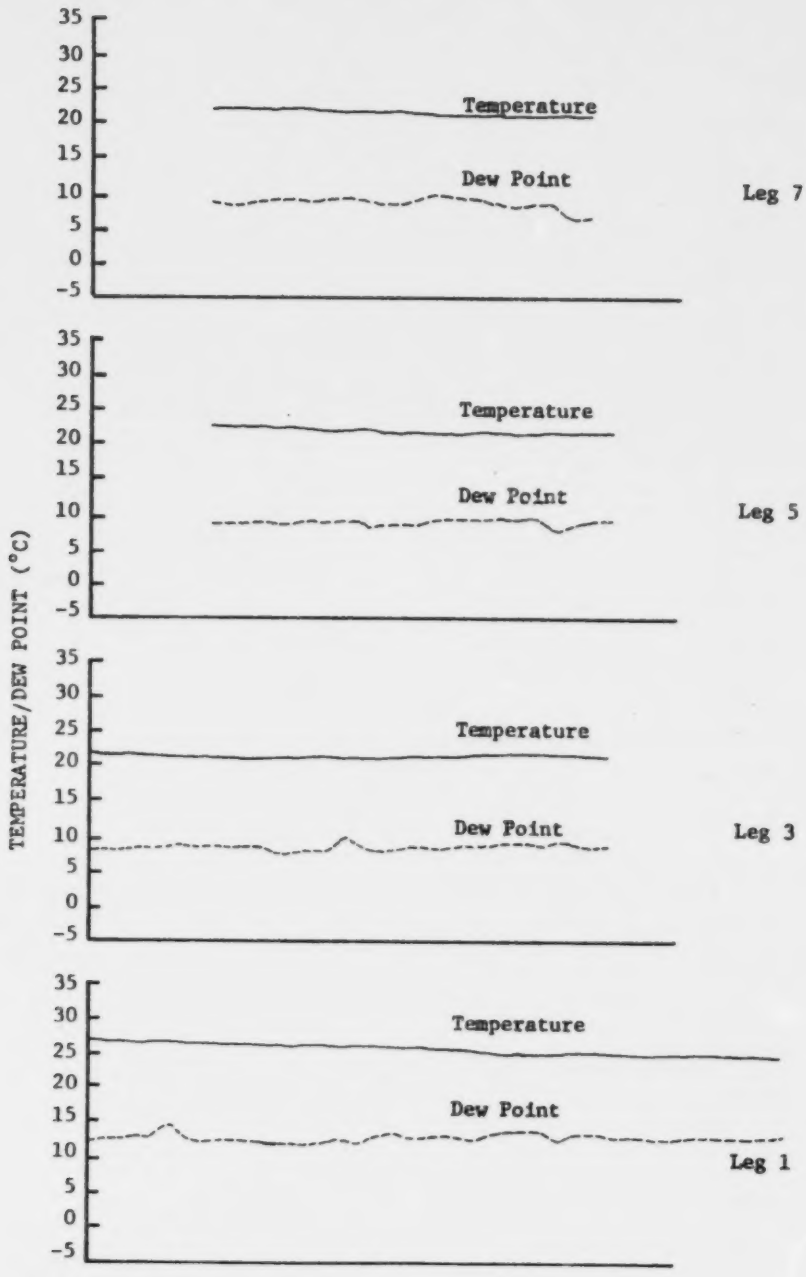

Figure 4.38. Tulsa Flight T10, September 2, 1977. Horizontal Traverse, Temperature and Dewpoint.

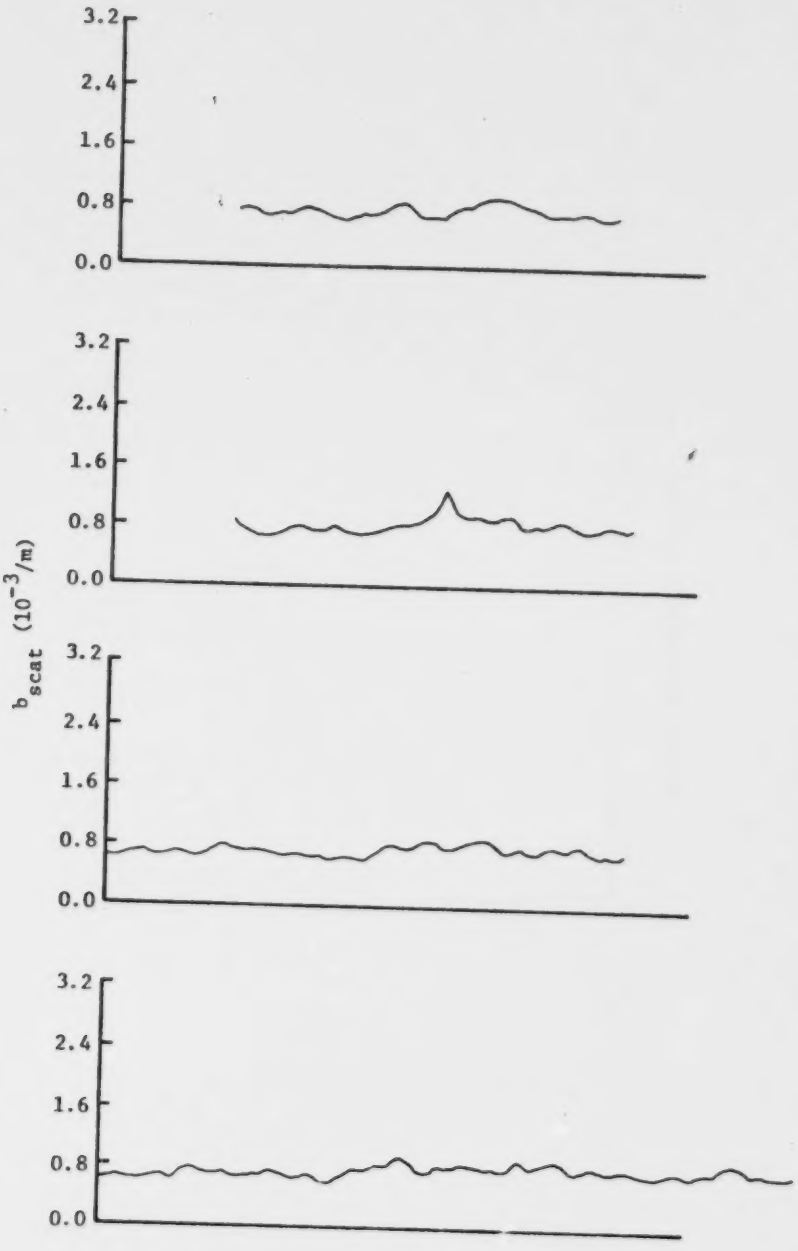

Figure 4.39. Tulsa Flight T10, September 2, 1977. Horizontal Traverse, b_{scat}.

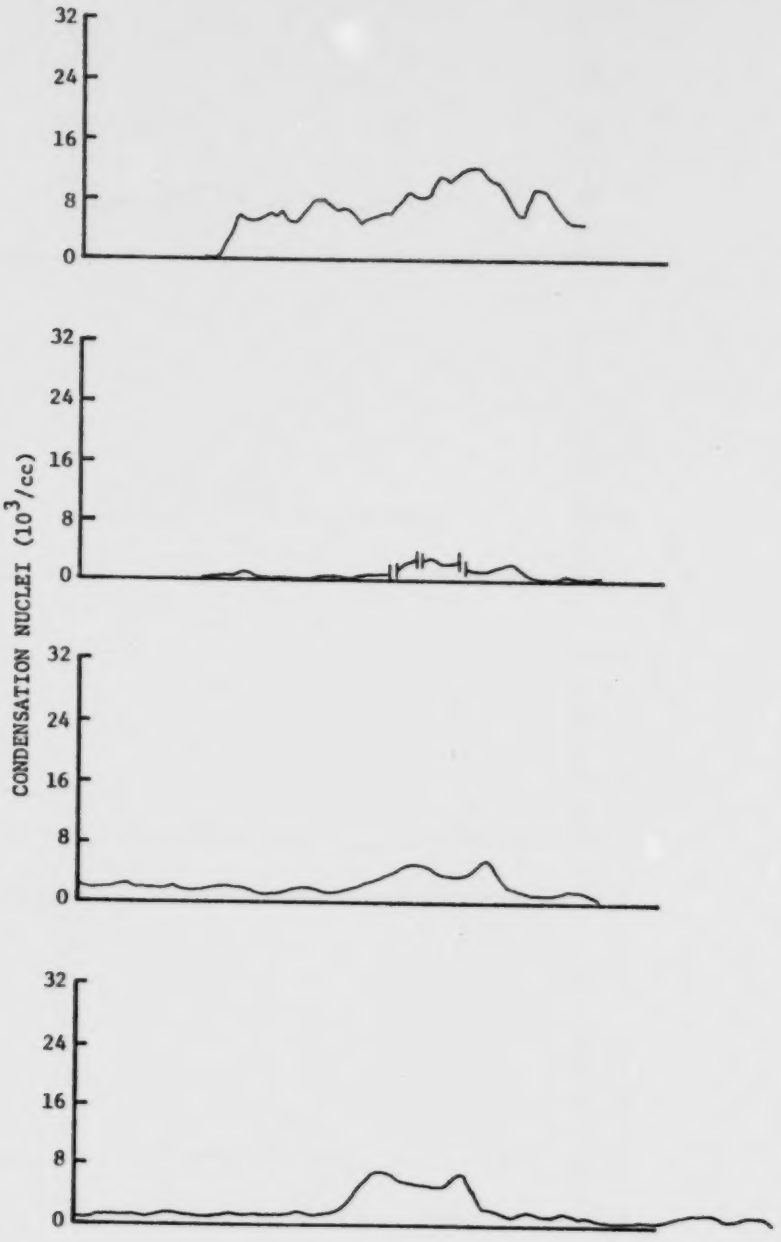

Figure 4.40. Tulsa Flight T10, September 2, 1977, Horizontal Traverse, Condensation Nuclei.

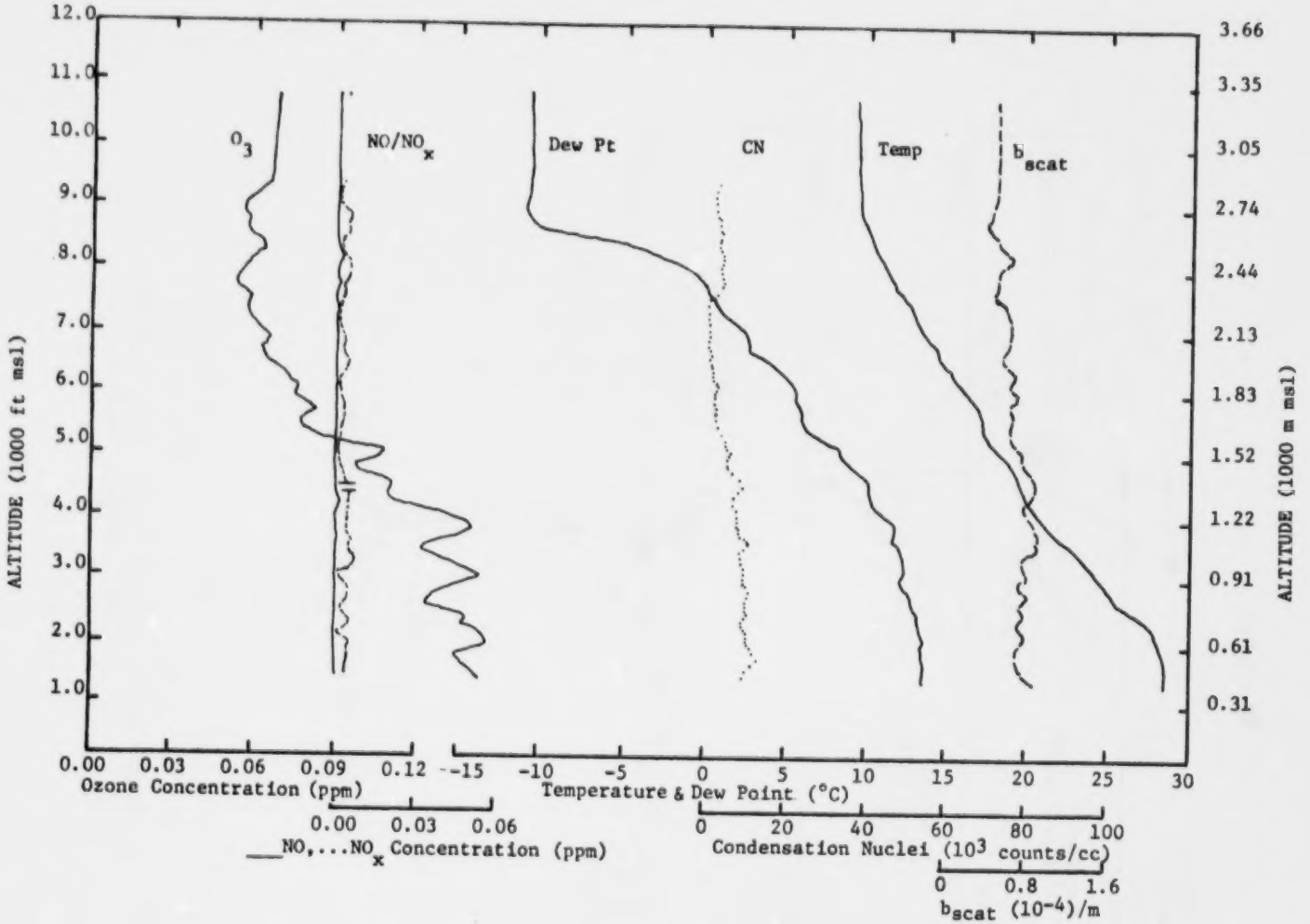

Figure 4.41. Tulsa Flight T10, September 2, 1977. Vertical Spiral, Ramona.

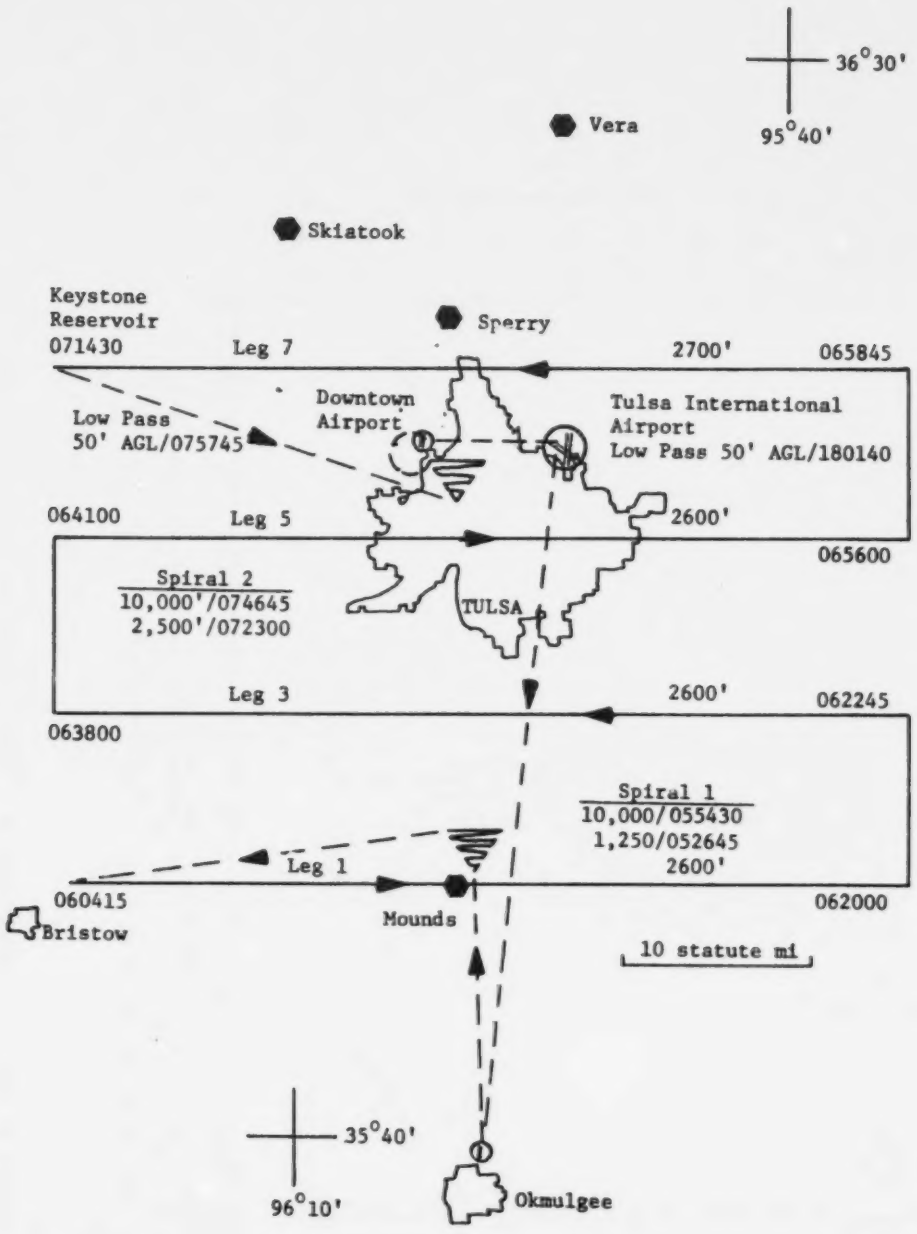

Figure 4.42. Tulsa Flight T11, September 3, 1977. AM Transport Pattern.

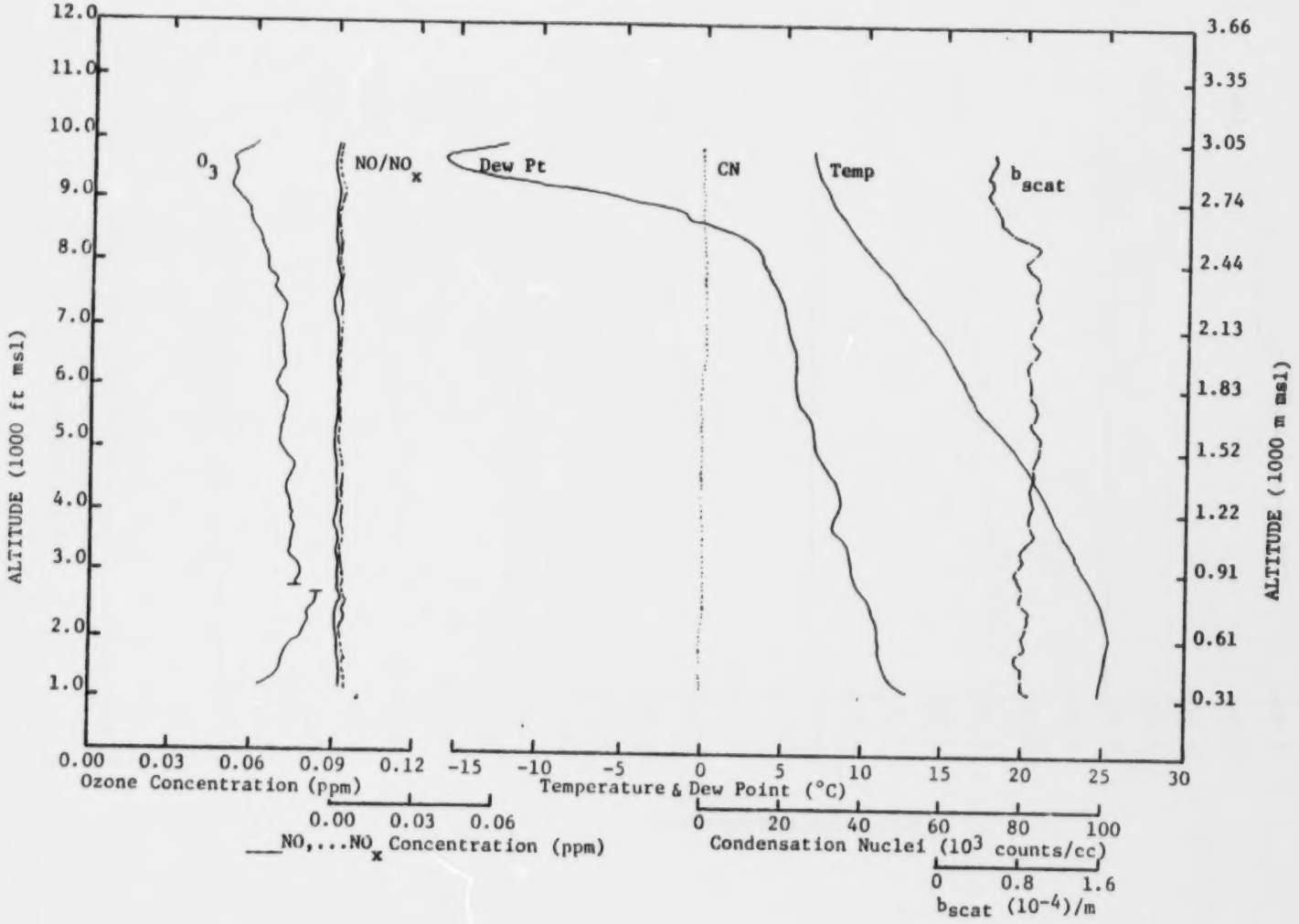

Figure 4.43. Tulsa Flight T11, September 3, 1977. Vertical Spiral, Liberty Mounds.

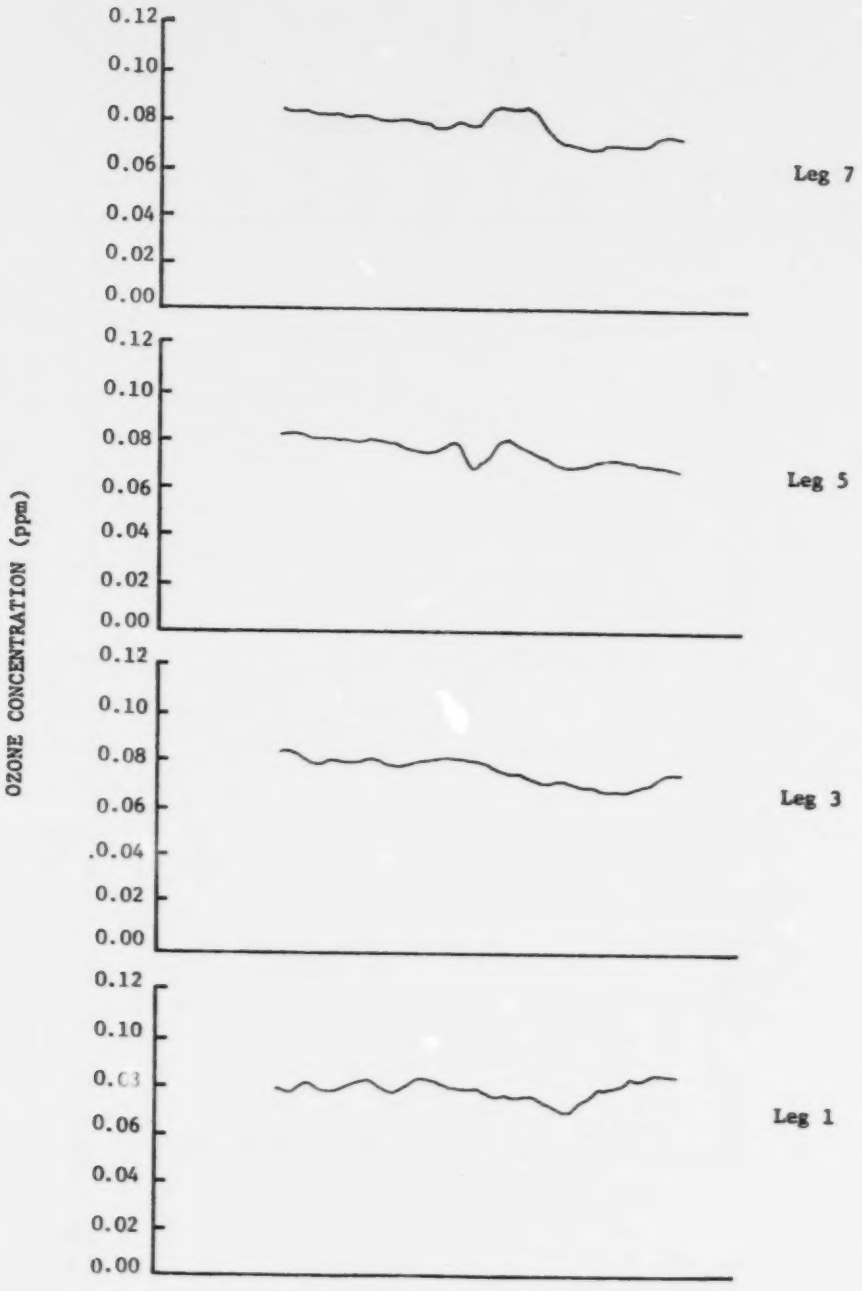

Figure 4.44. Tulsa Flight T11, September 3, 1977. Horizontal Traverse, Ozone Concentration.

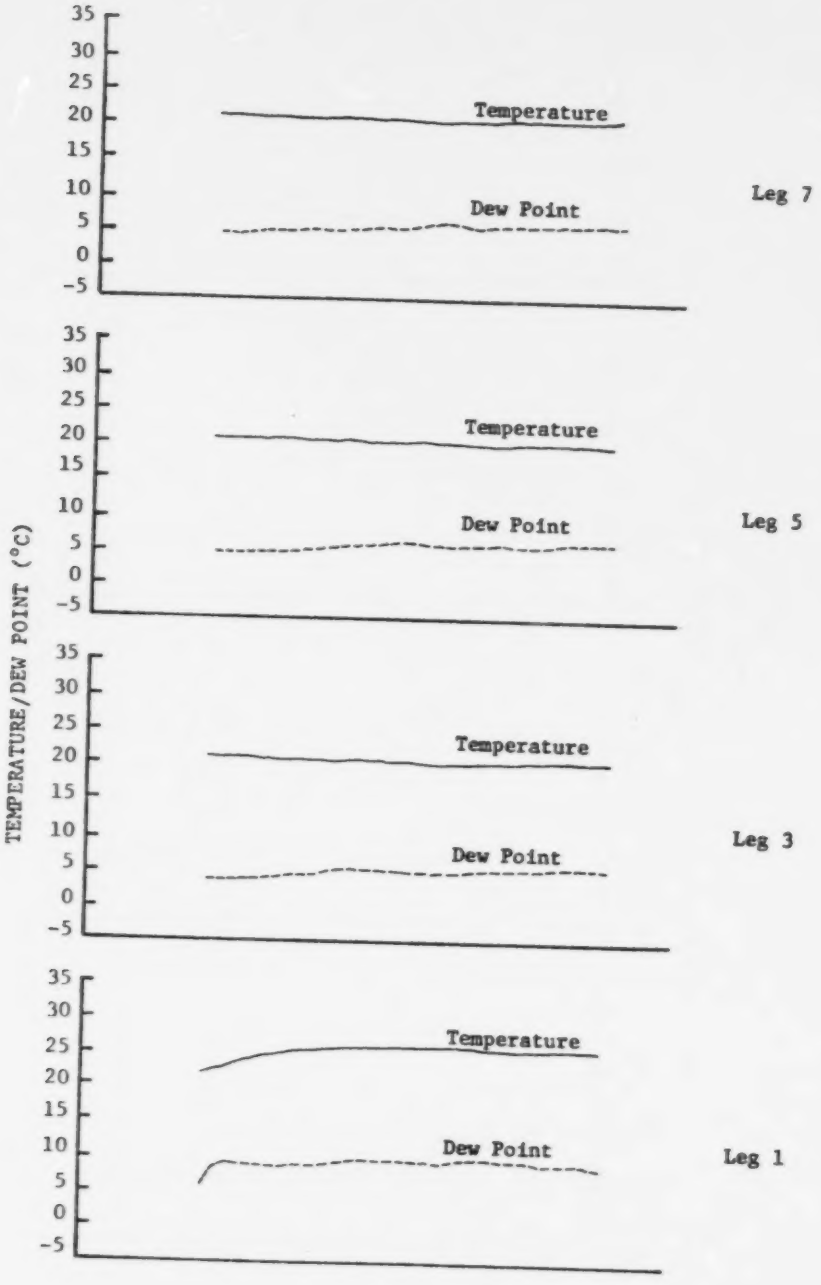

Figure 4.45. Tulsa Flight T11, September 3, 1977. Horizontal Traverse, Temperature and Dewpoint.

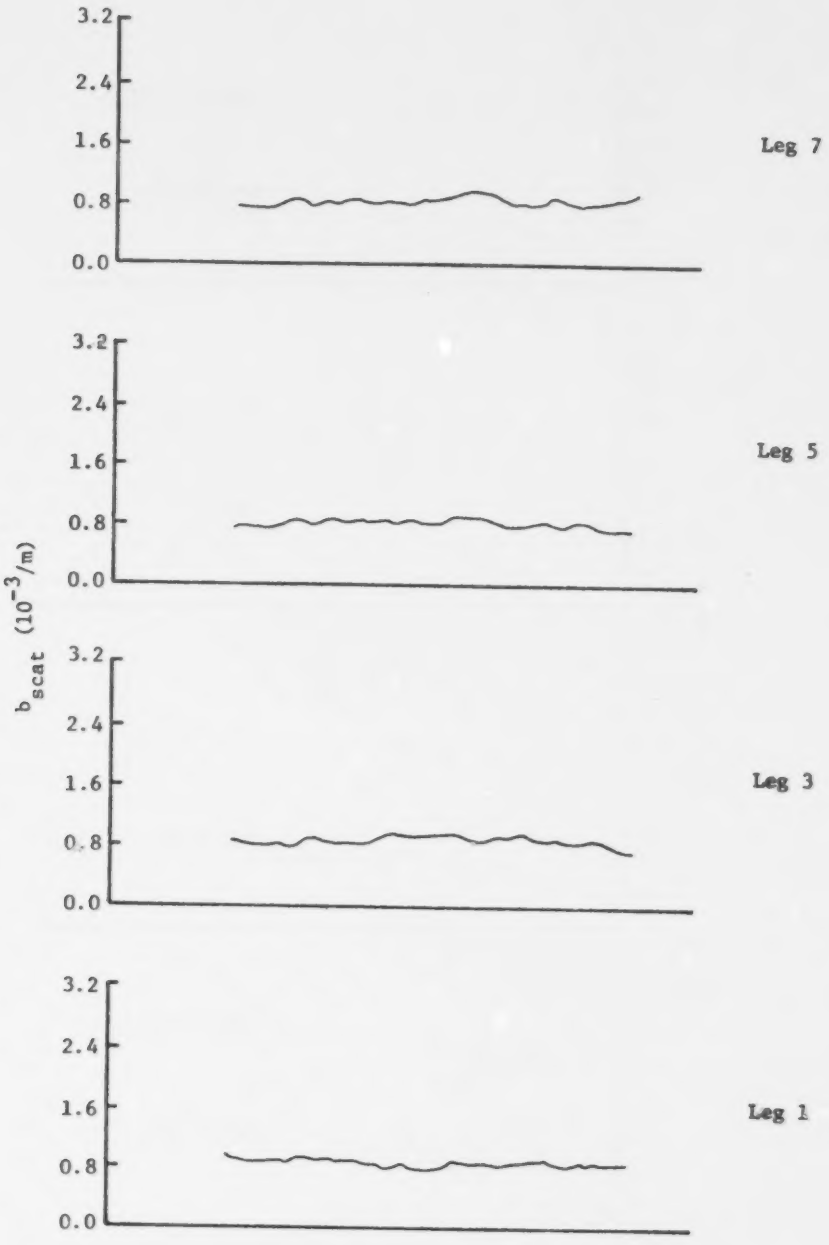

Figure 4.46. Tulsa Flight T11, September 3, 1977. Horizontal Traverse, b_{scat}.

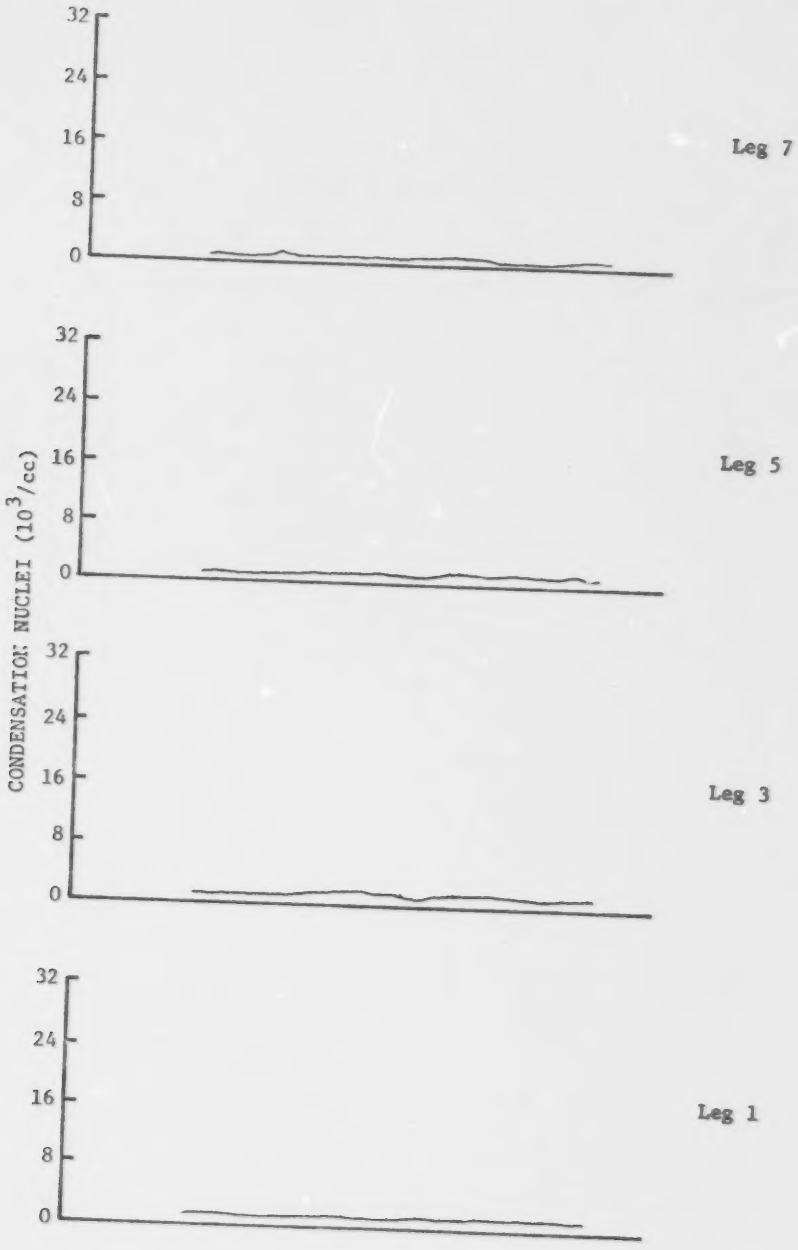

Figure 4.47. Tulsa Flight T11, September 3, 1977. Horizontal Traverse, Condensation Nuclei.

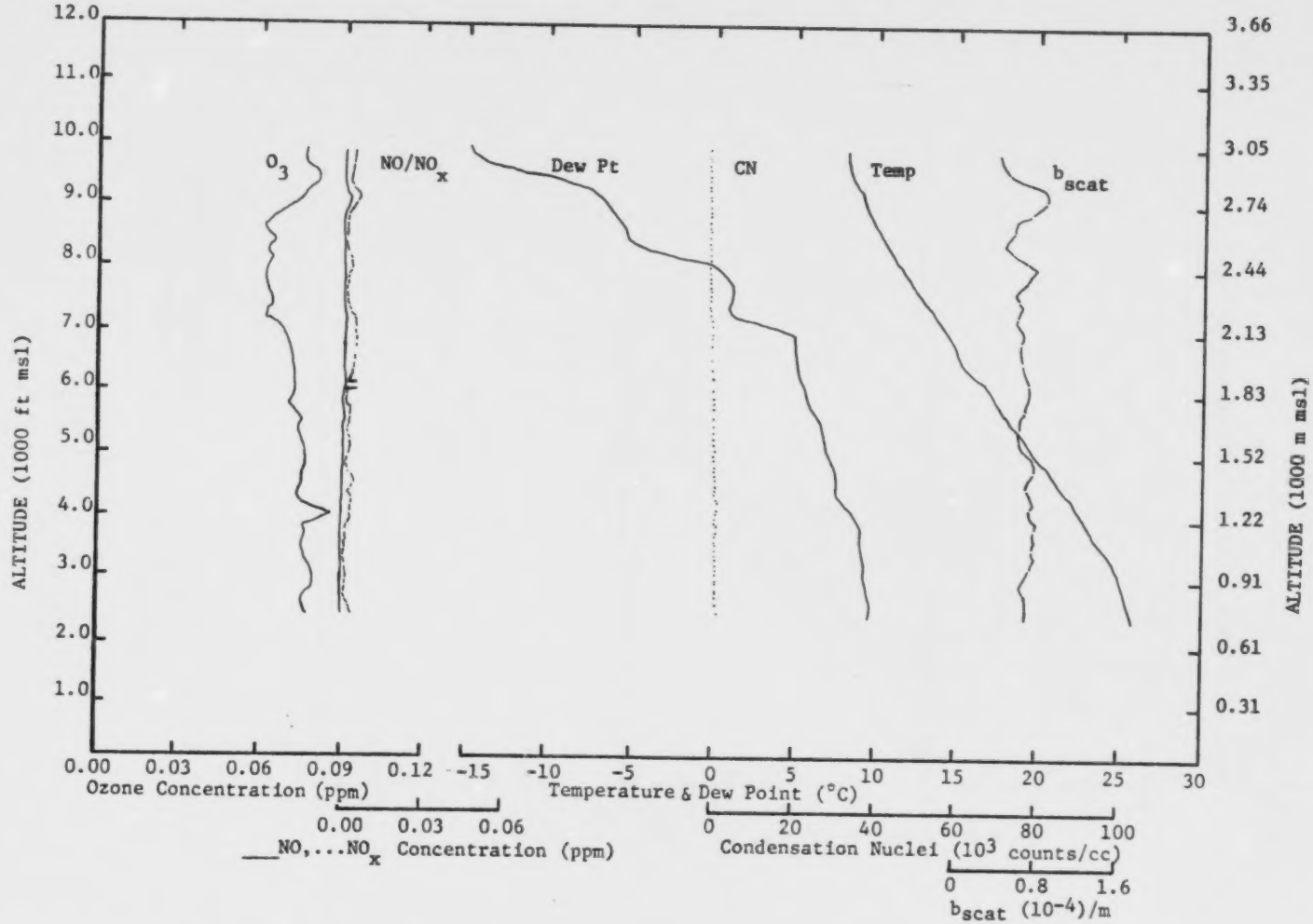

Figure 4.48. Tulsa Flight T11, September 3, 1977. Vertical Spiral, Central Business District.

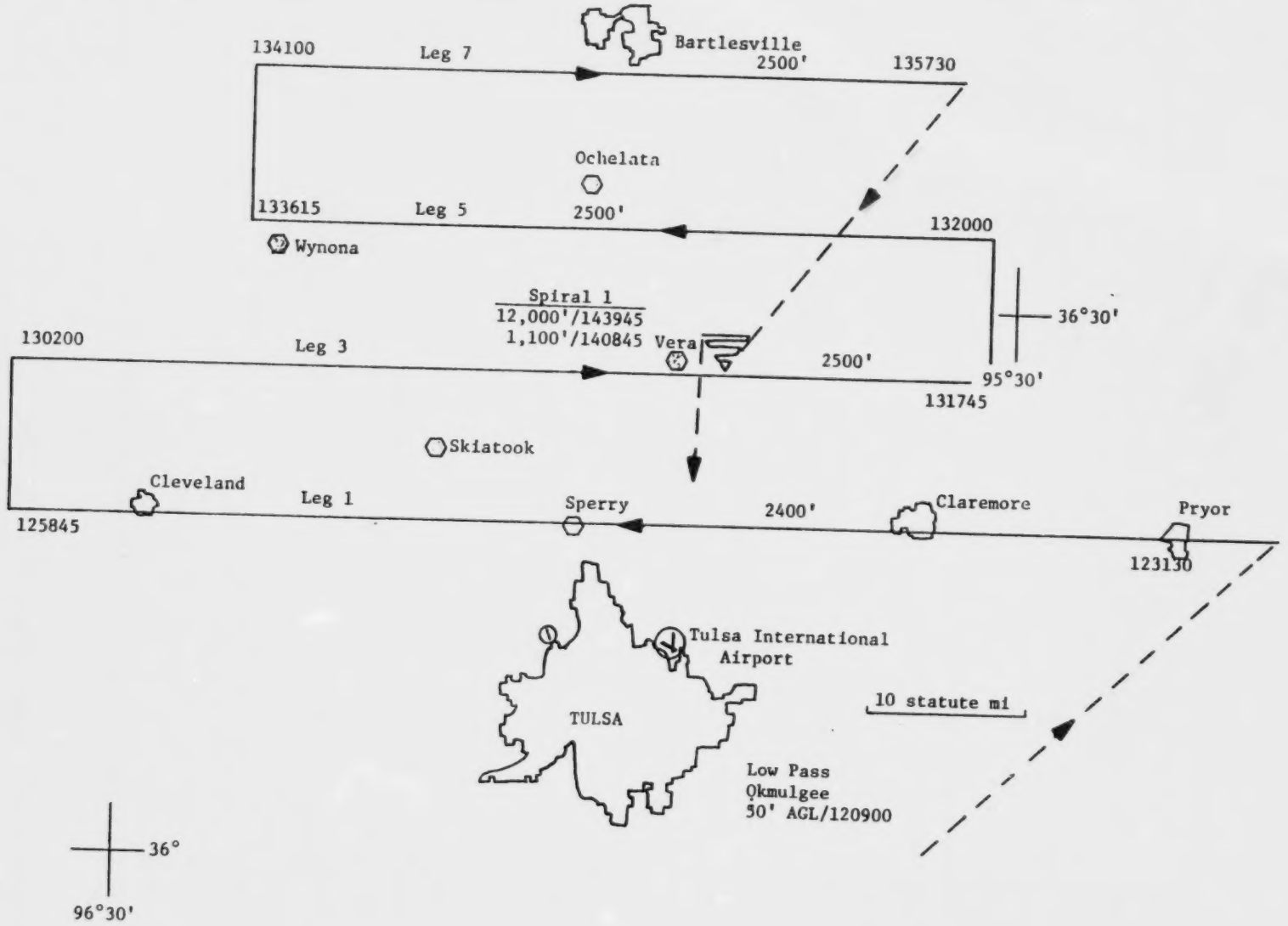

Figure 4.49. Tulsa Flight T12, September 3, 1977. PM Flight Pattern.

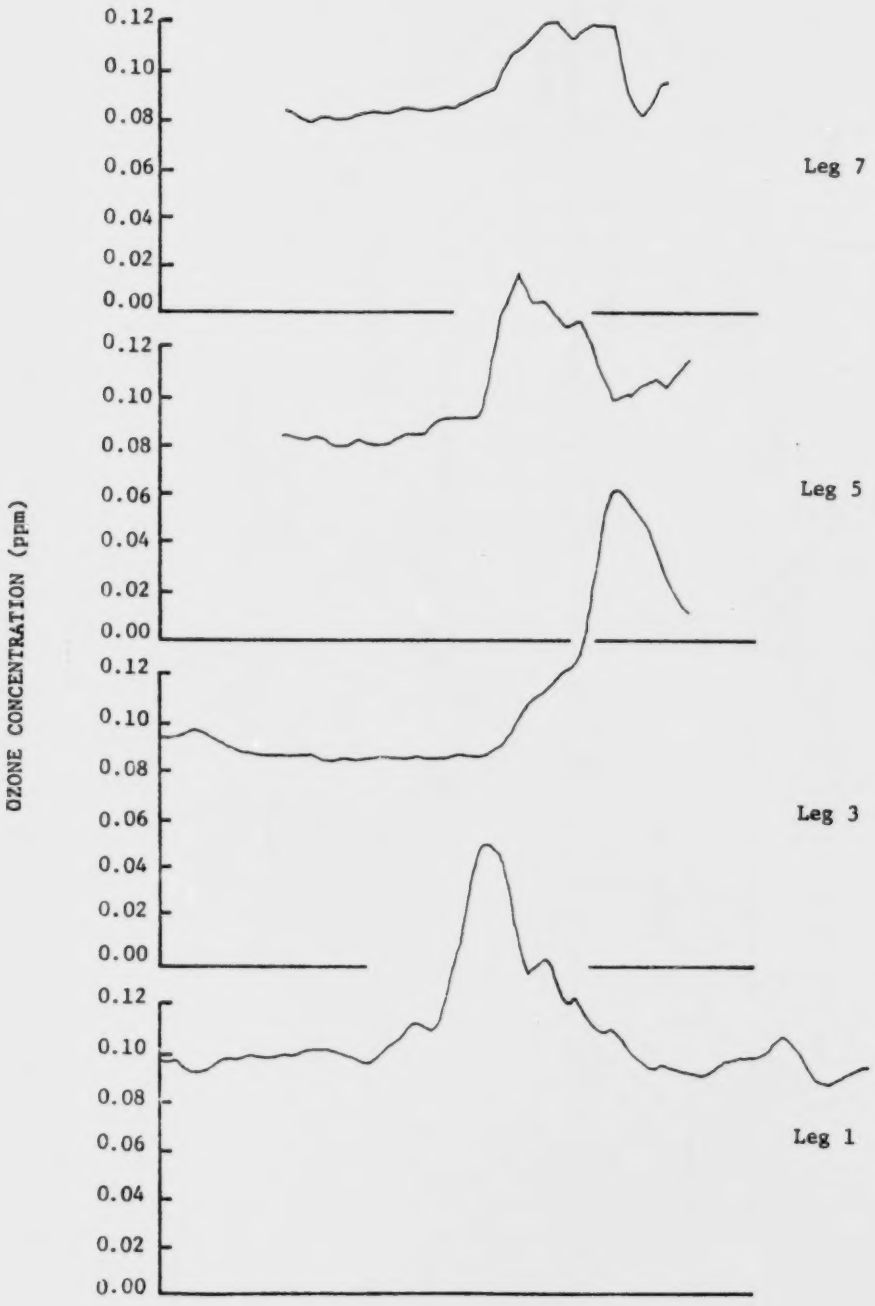

Figure 4.50. Tulsa Flight T12, September 3, 1977. Horizontal Traverse, Ozone Concentration.

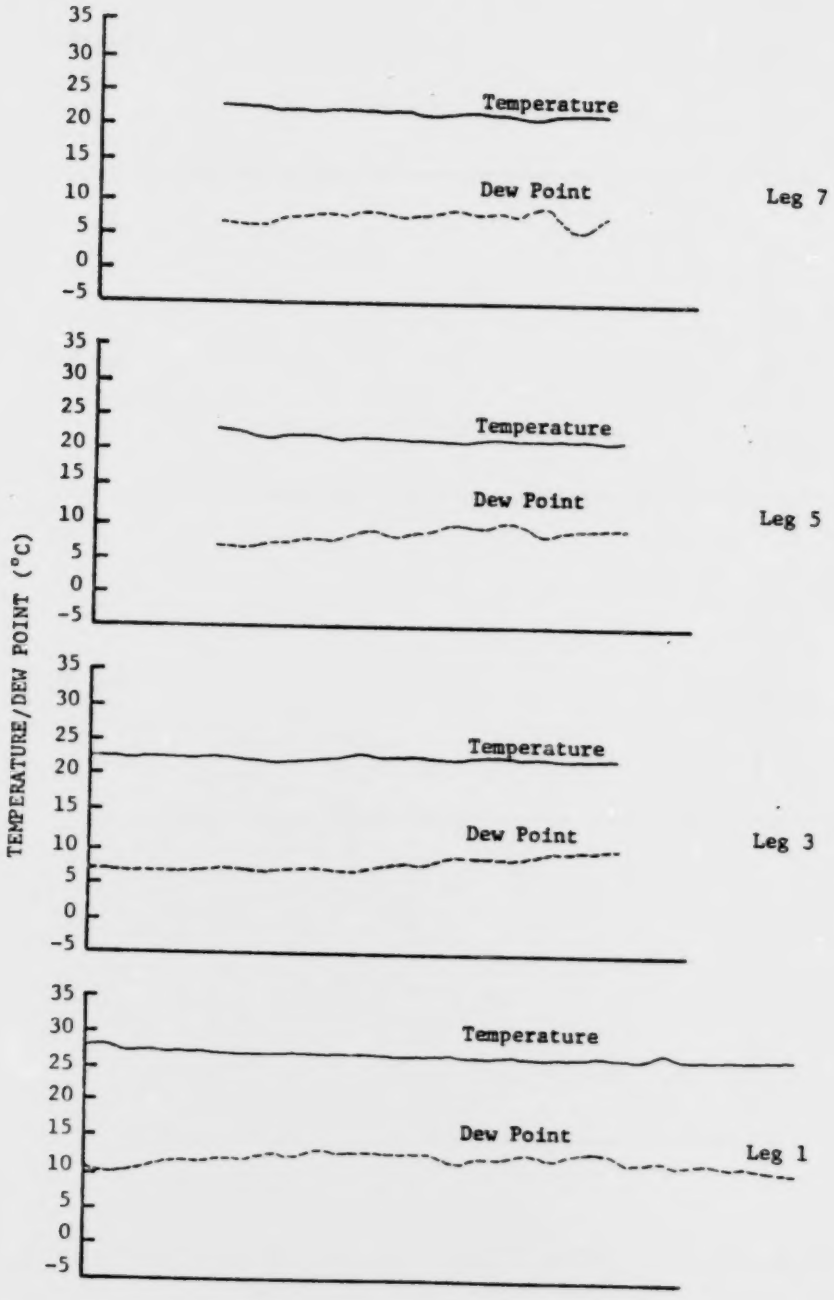

Figure 4.51. Tulsa Flight T12, September 3, 1977. Horizontal Traverse, Temperature and Dewpoint.

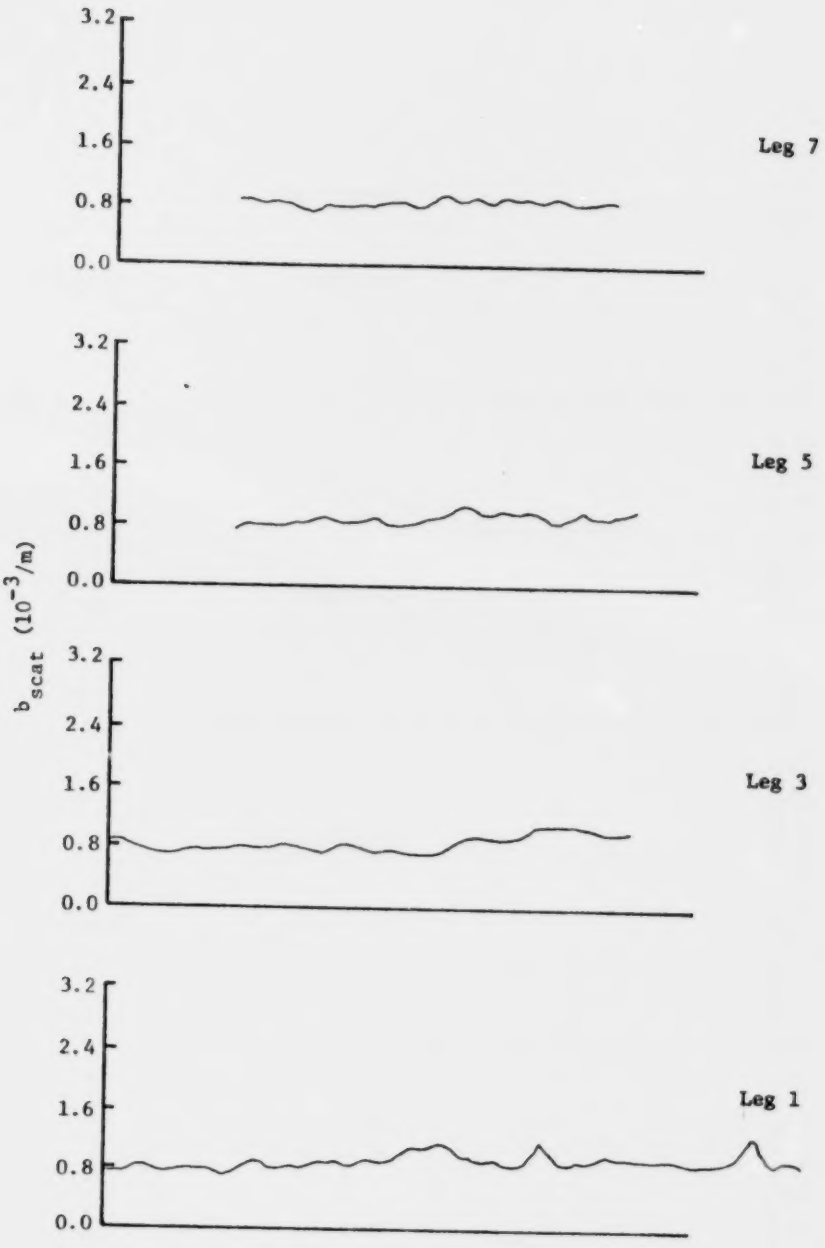

Figure 4.52. Tulsa Flight T12, September 3, 1977. Horizontal Traverse, b_{scat}.

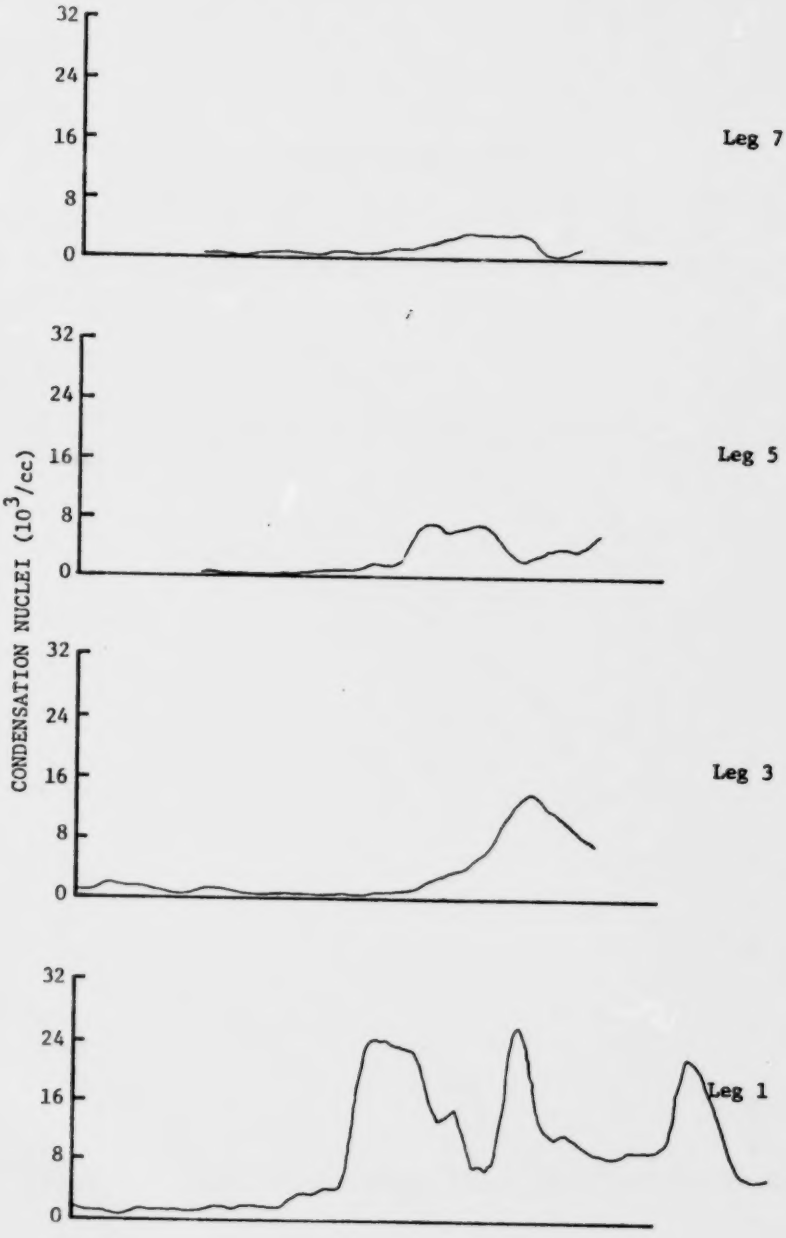

Figure 4.53. Tulsa Flight T12, September 3, 1977. Horizontal Traverse, Condensation Nuclei.

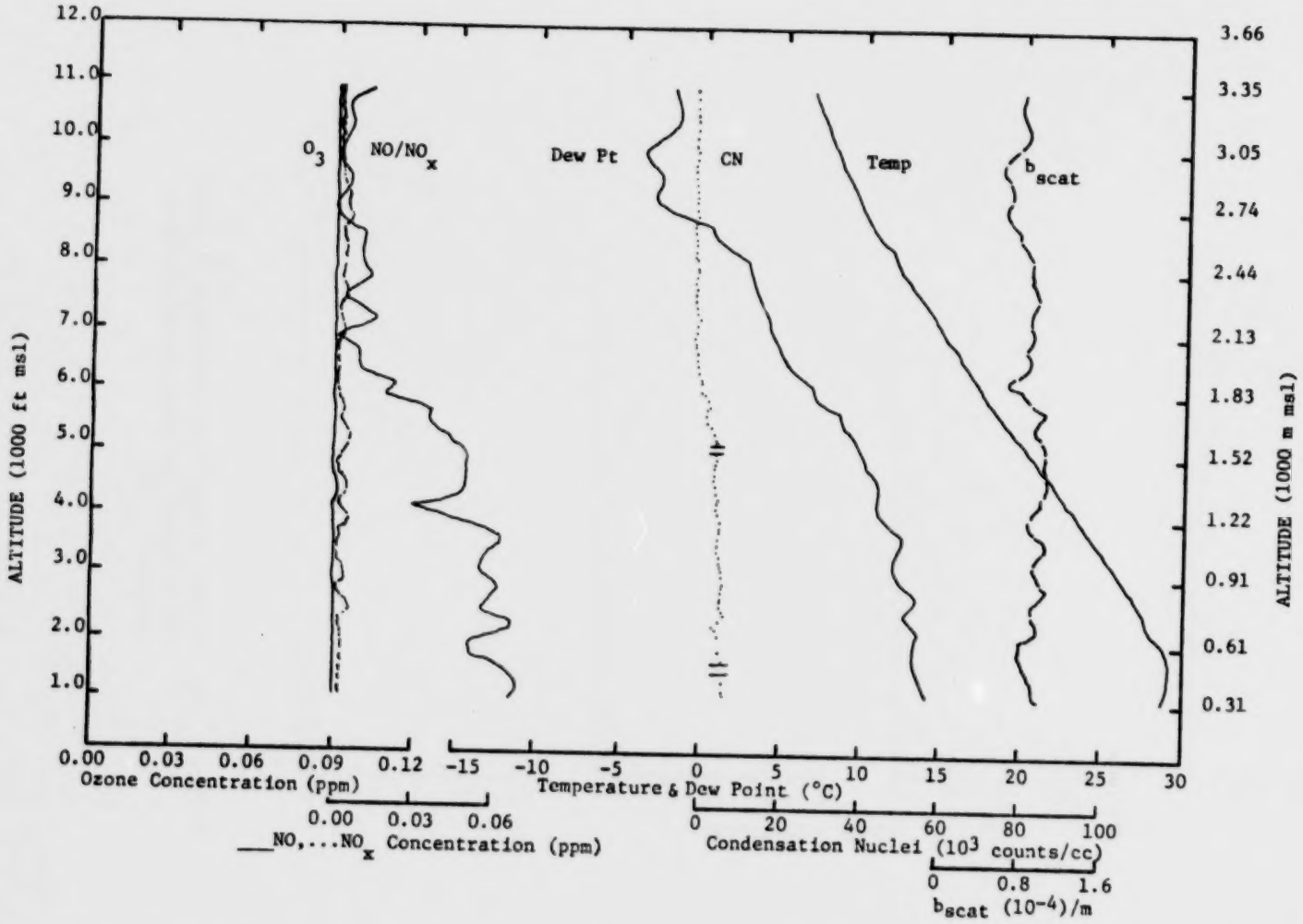

Figure 4.54. Tulsa Flight T12, September 3, 1977. Vertical Spiral, Ramona.

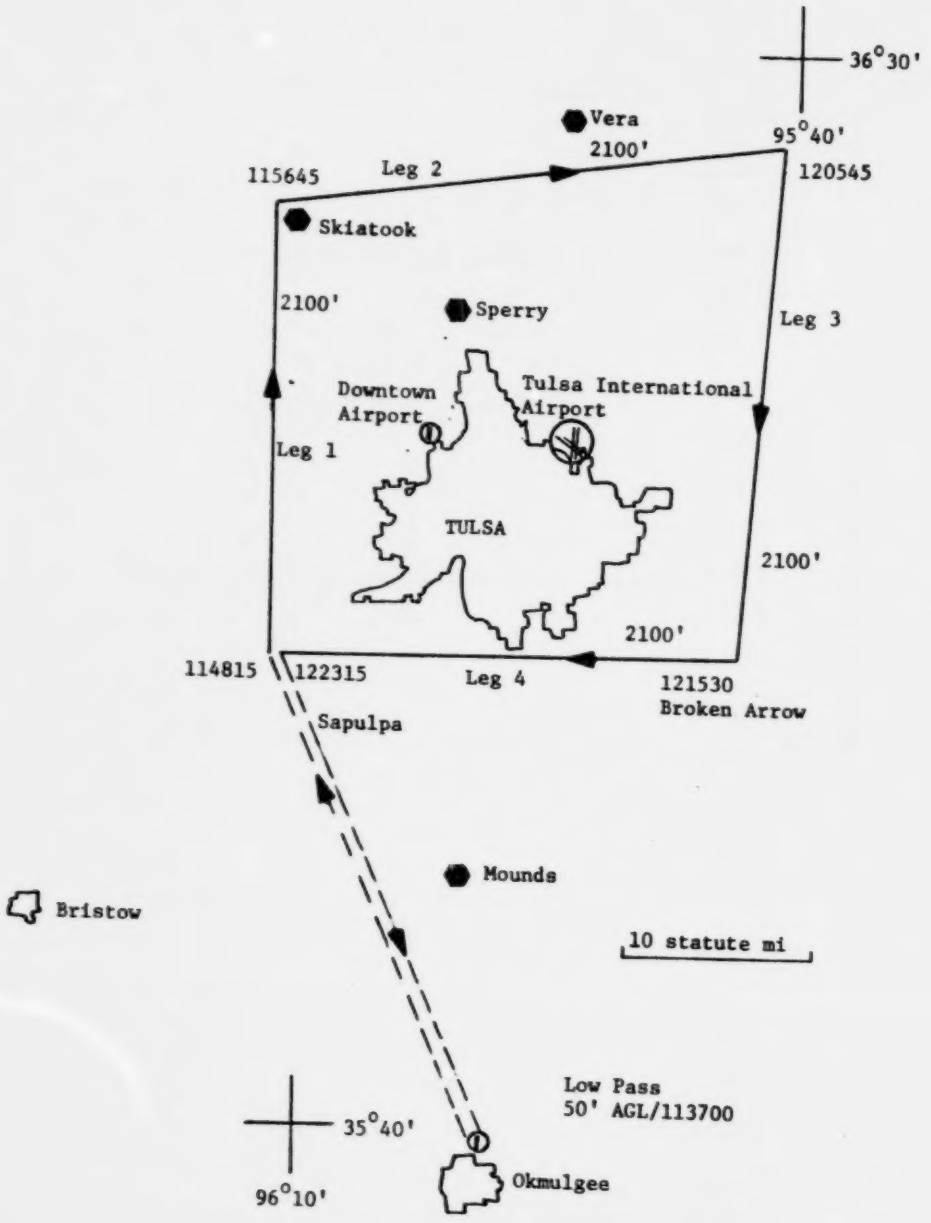

Figure 4.55. Tulsa Flight T14, September 8, 1977. AM Stagnation Pattern.

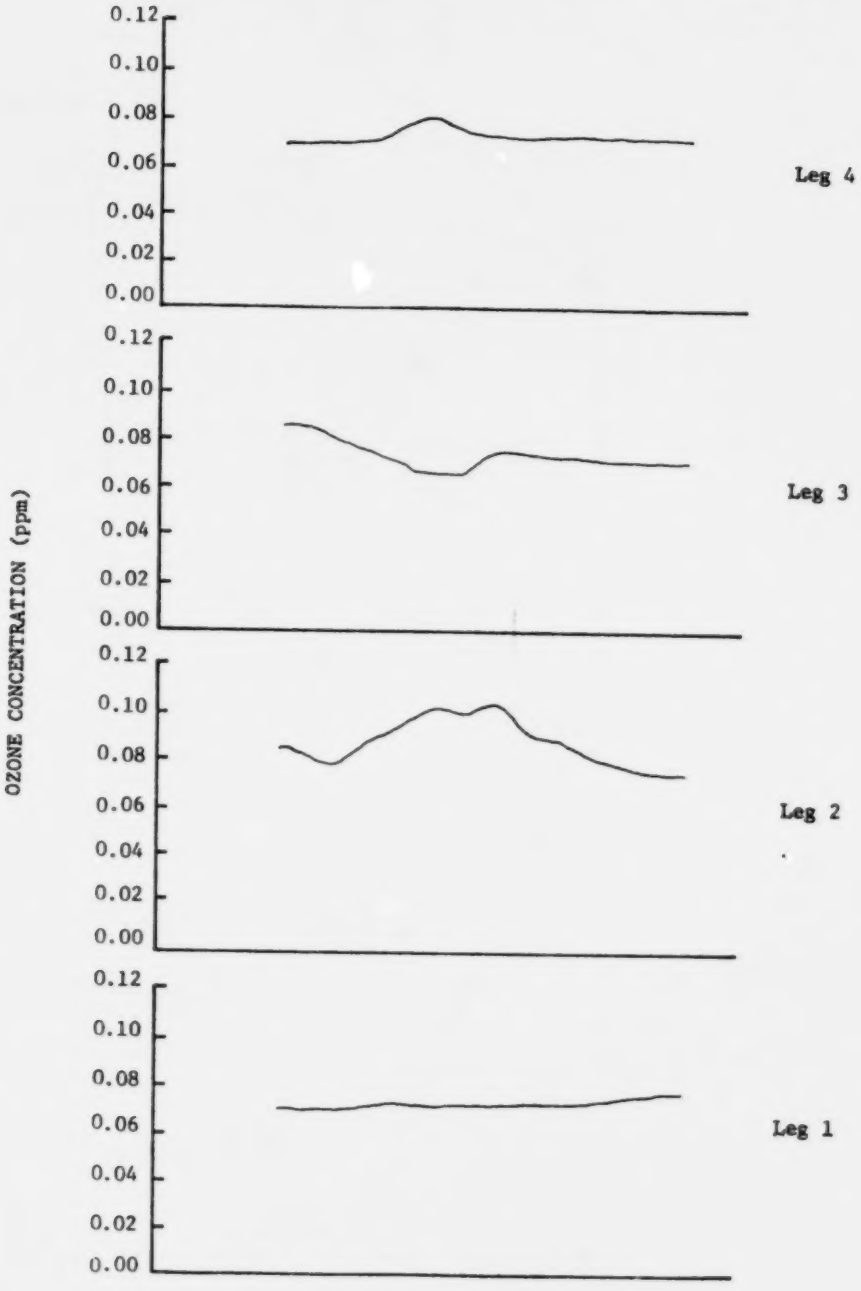

Figure 4.56. Tulsa Flight T14, September 8, 1977. Horizontal Traverse, Ozone Concentration.

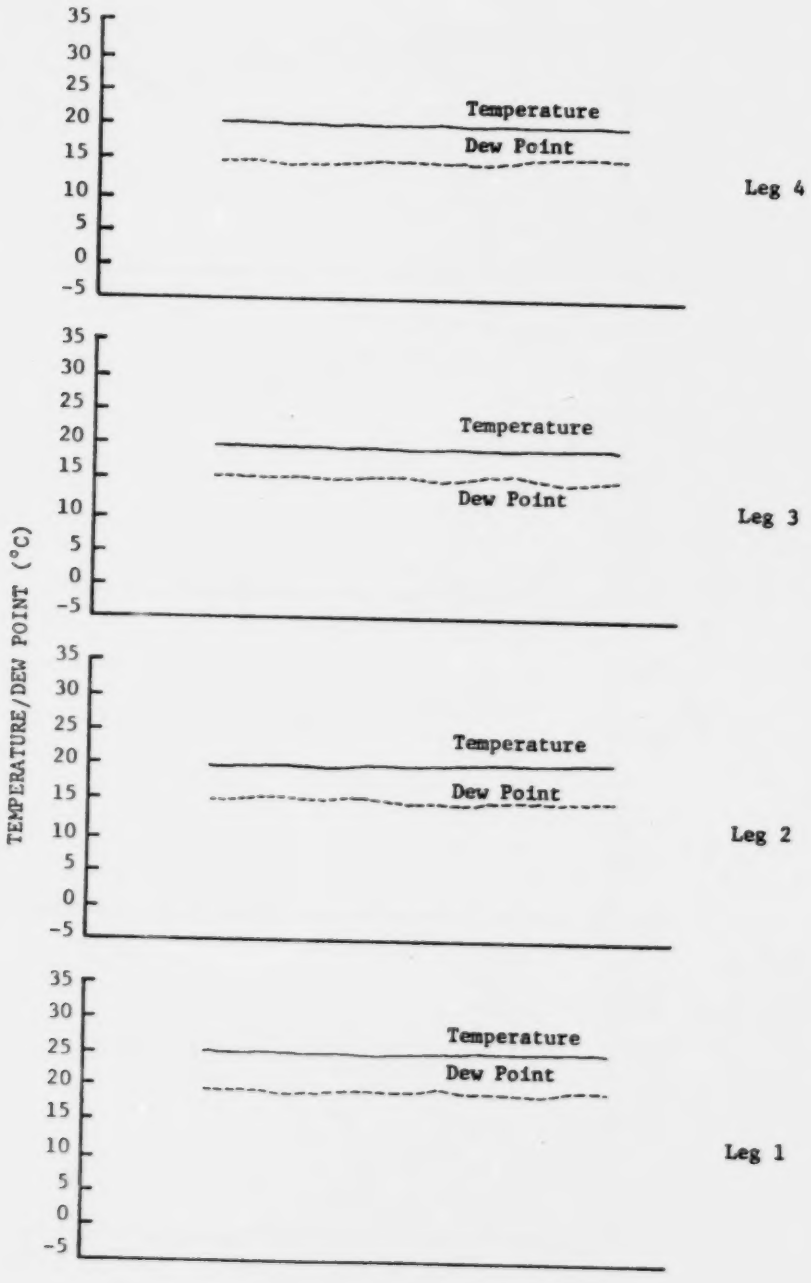

Figure 4.57. Tulsa Flight T14, September 8, 1977, Horizontal Traverse, Temperature and Dewpoint.

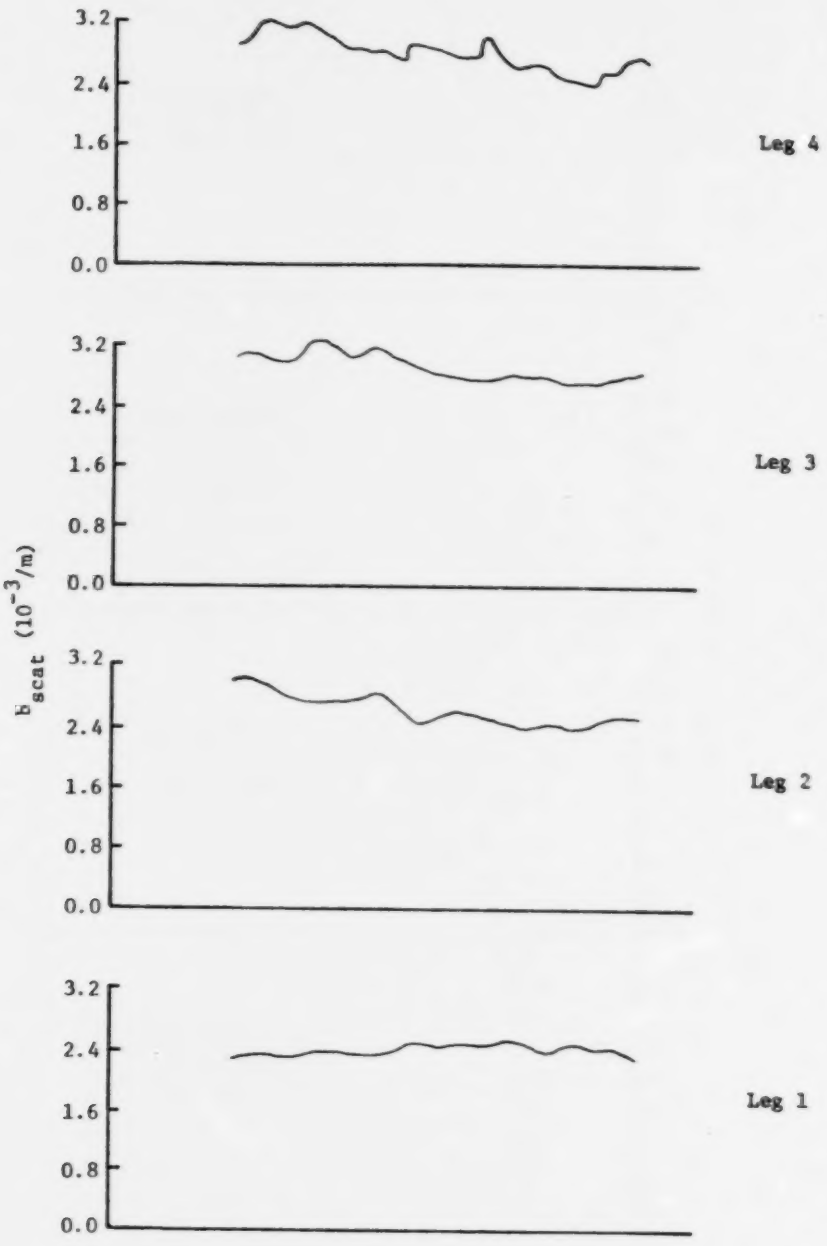

Figure 4.58. Tulsa Flight T14, September 8, 1977. Horizontal Traverse, b_{scat}.

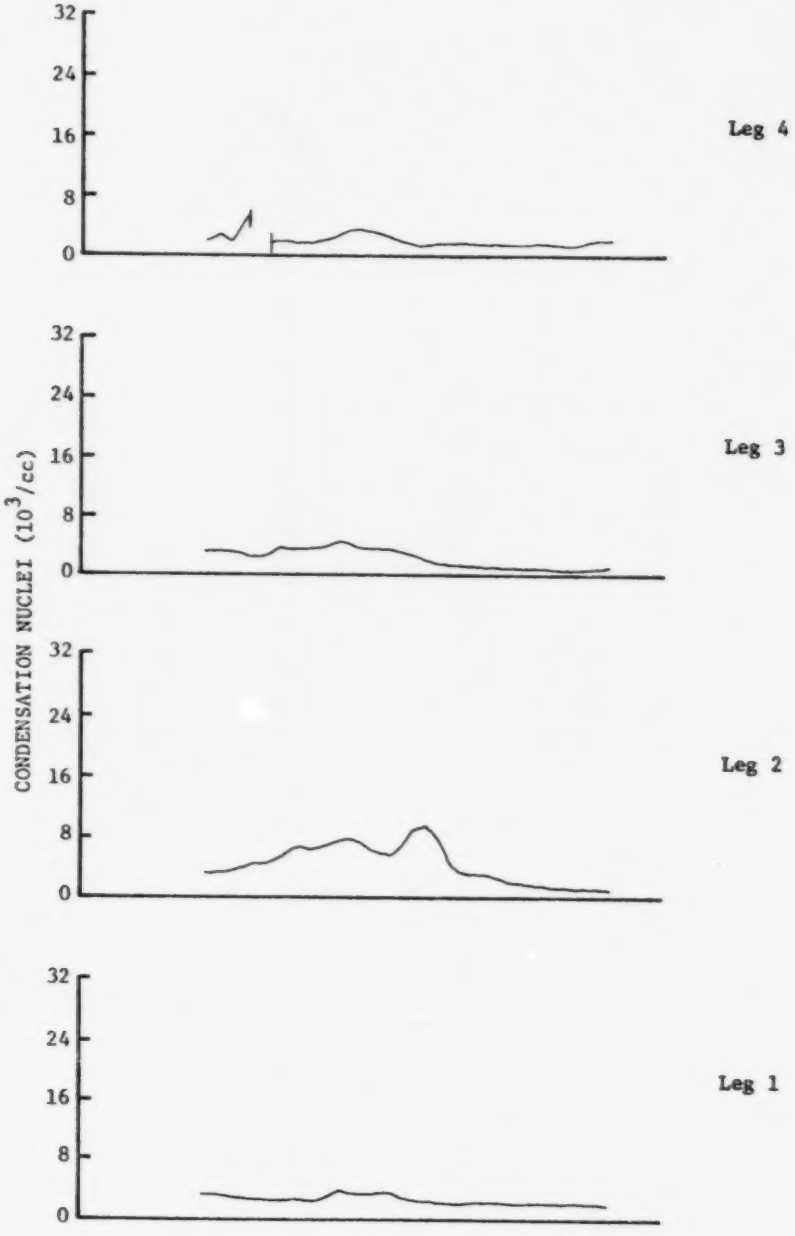

Figure 4.59. Tulsa Flight T14, September 8, 1977. Horizontal Traverse, Condensation Nuclei.

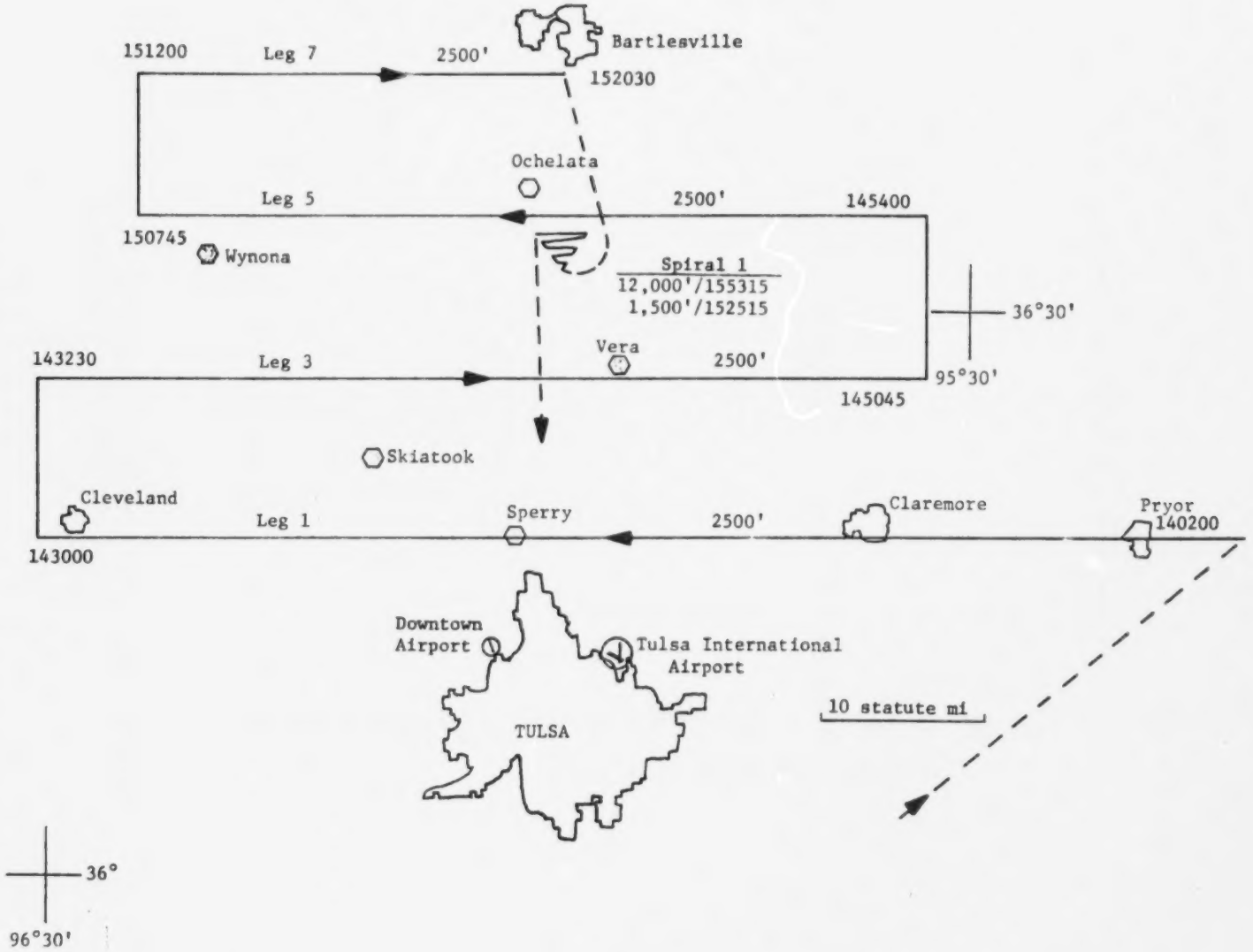

Figure 4.60. Tulsa Flight T15, September 9, 1977.
PM Transport Pattern.

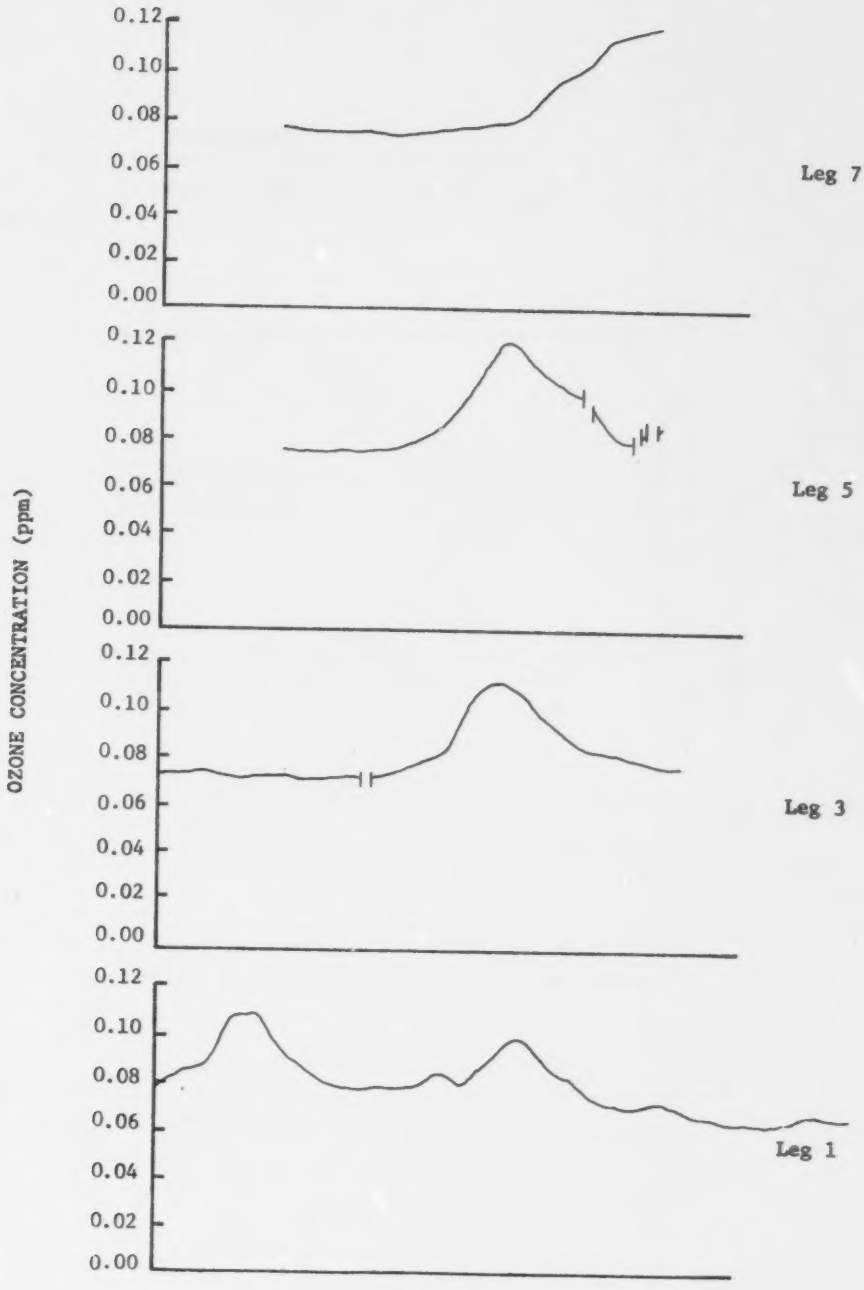

Figure 4.61. Tulsa Flight T15, September 9, 1977. Horizontal Traverse, Ozone Concentration.

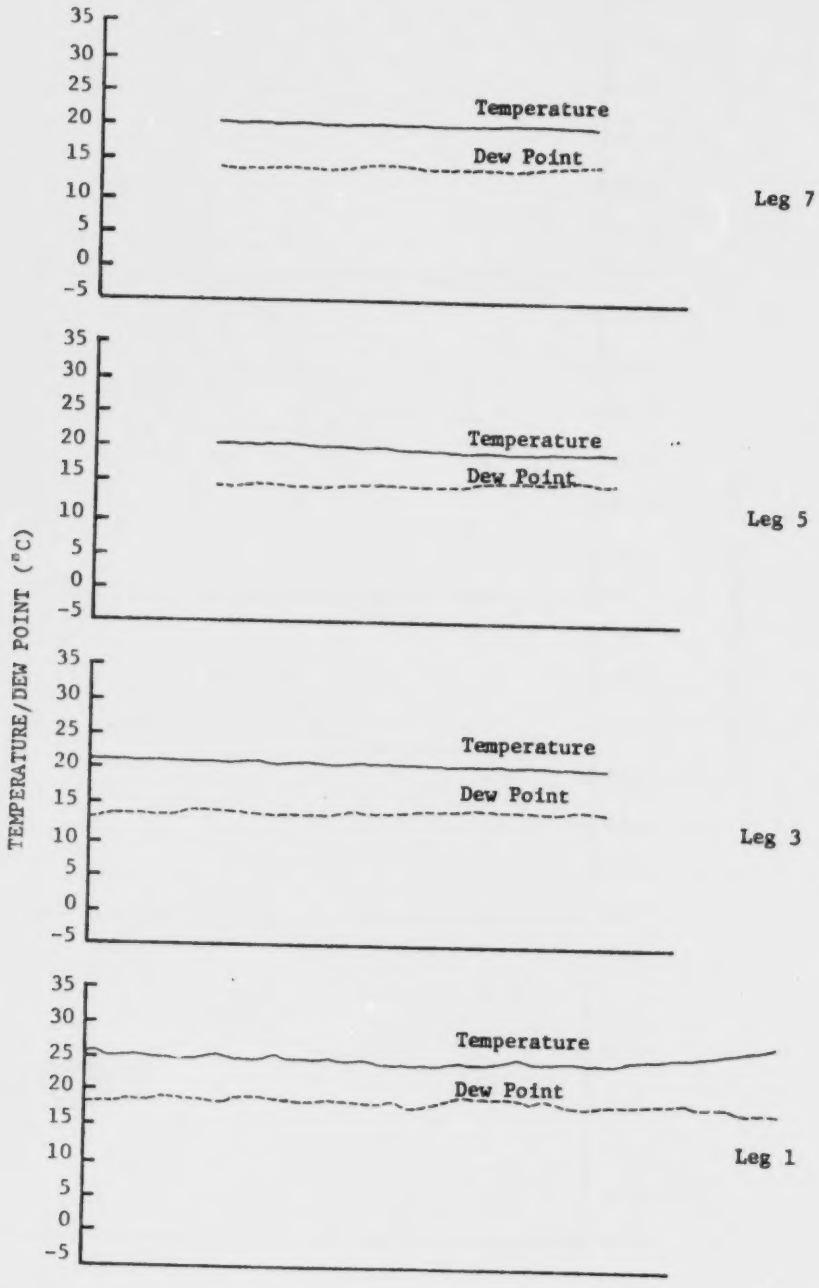

Figure 4.62. Tulsa Flight T15, September 9, 1977. Horizontal Traverse, Temperature and Dewpoint.

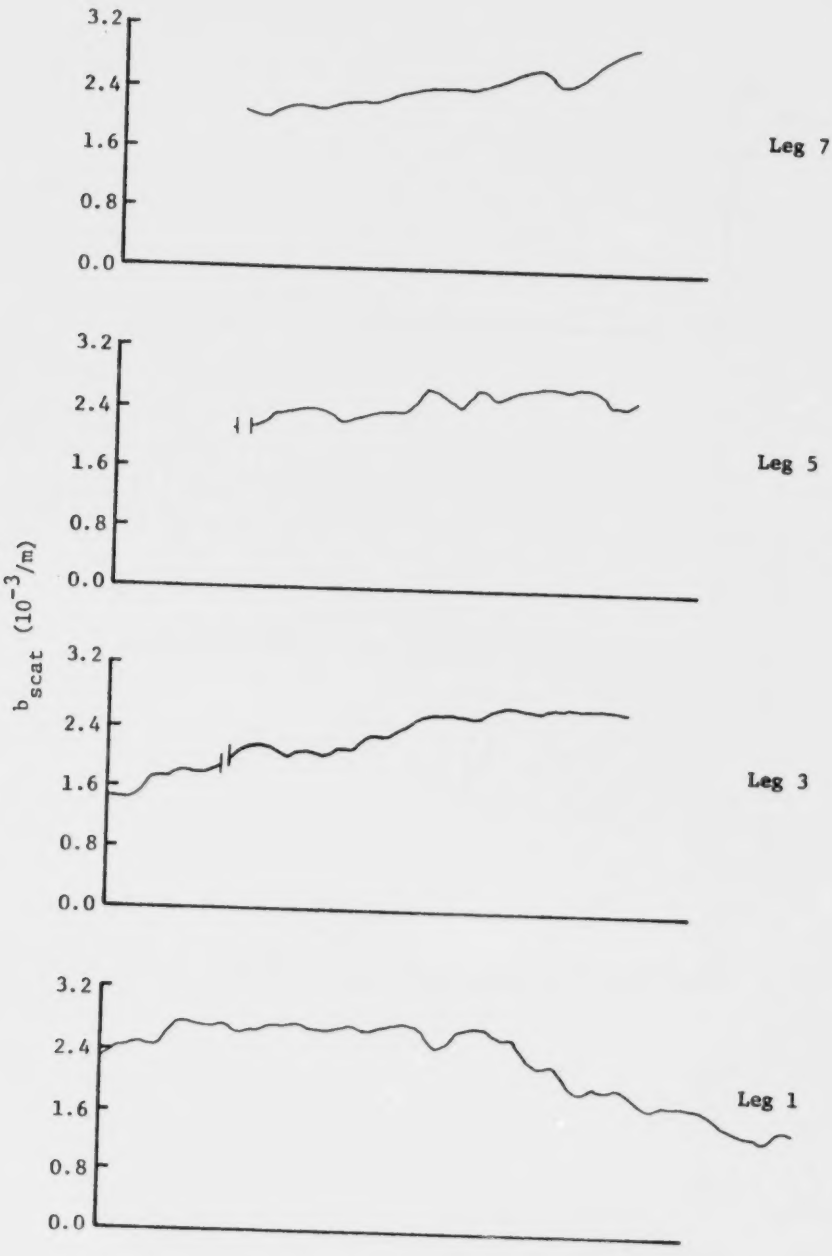

Figure 4.63. Tulsa Flight T15, September 9, 1977. Horizontal Traverse, b_{scat}.

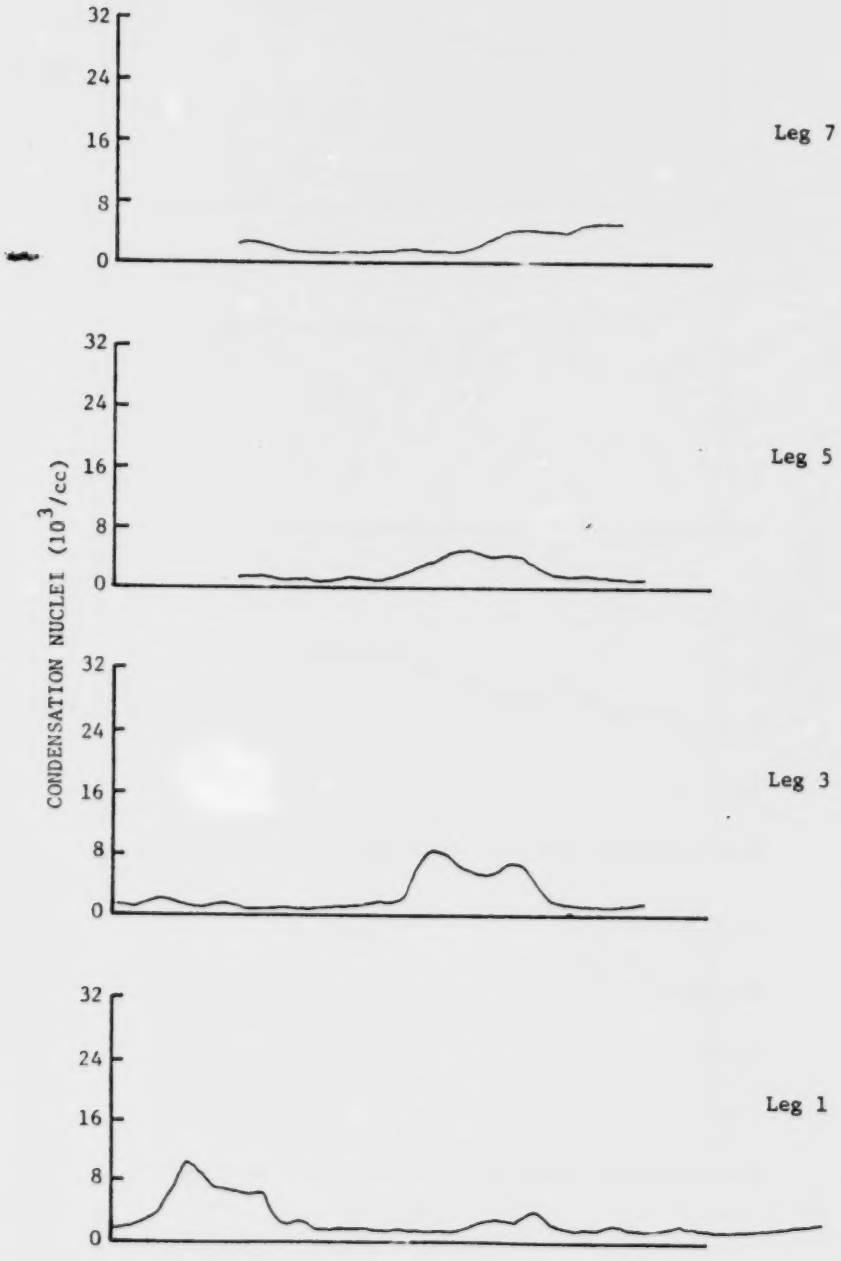

Figure 4.64. Tulsa Flight T15, September 9, 1977. Horizontal Traverse, Condensation Nuclei.

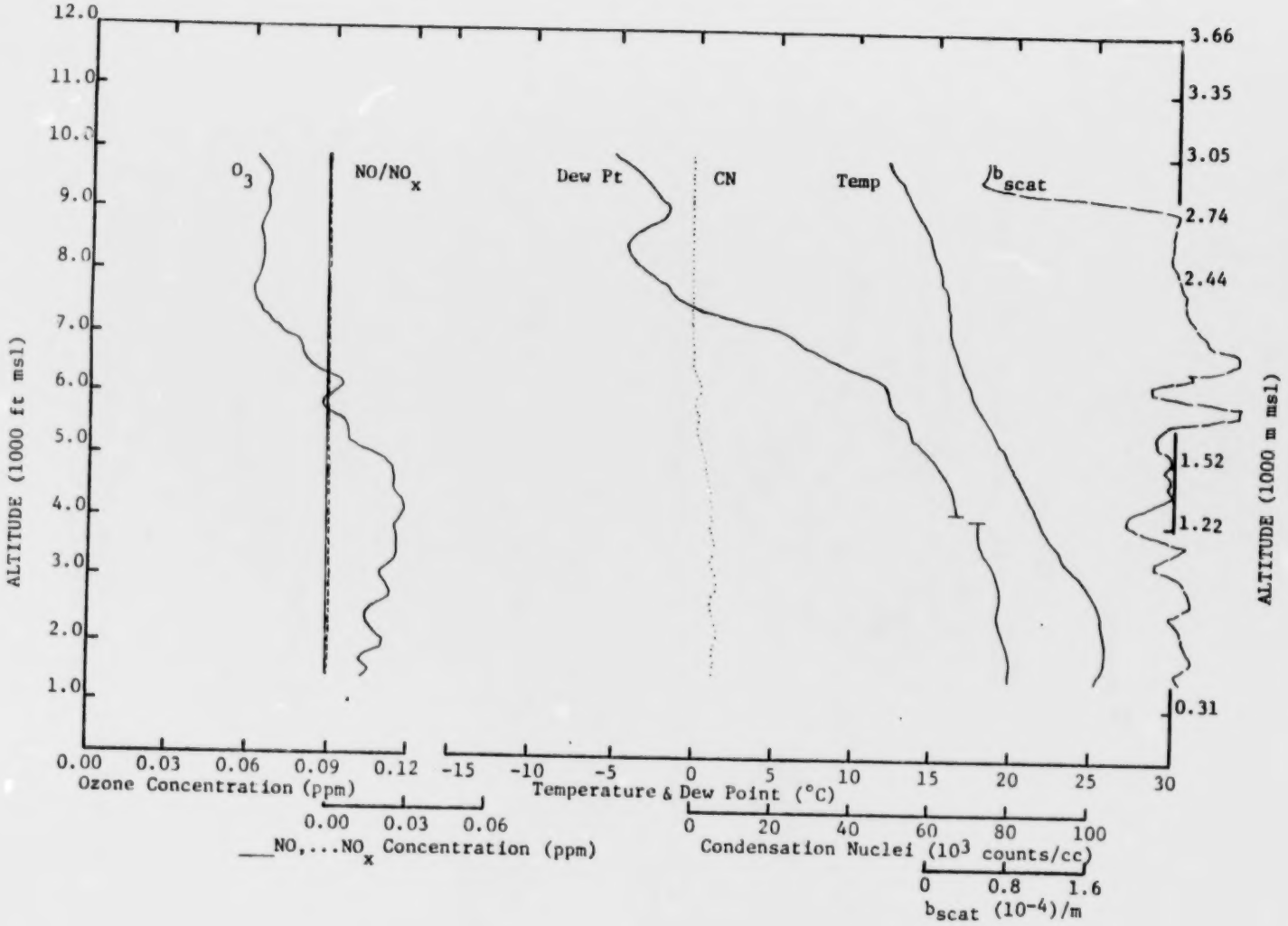

Figure 4.65. Tulsa Flight T15, September 9, 1977. Vertical Spiral, Ramona.

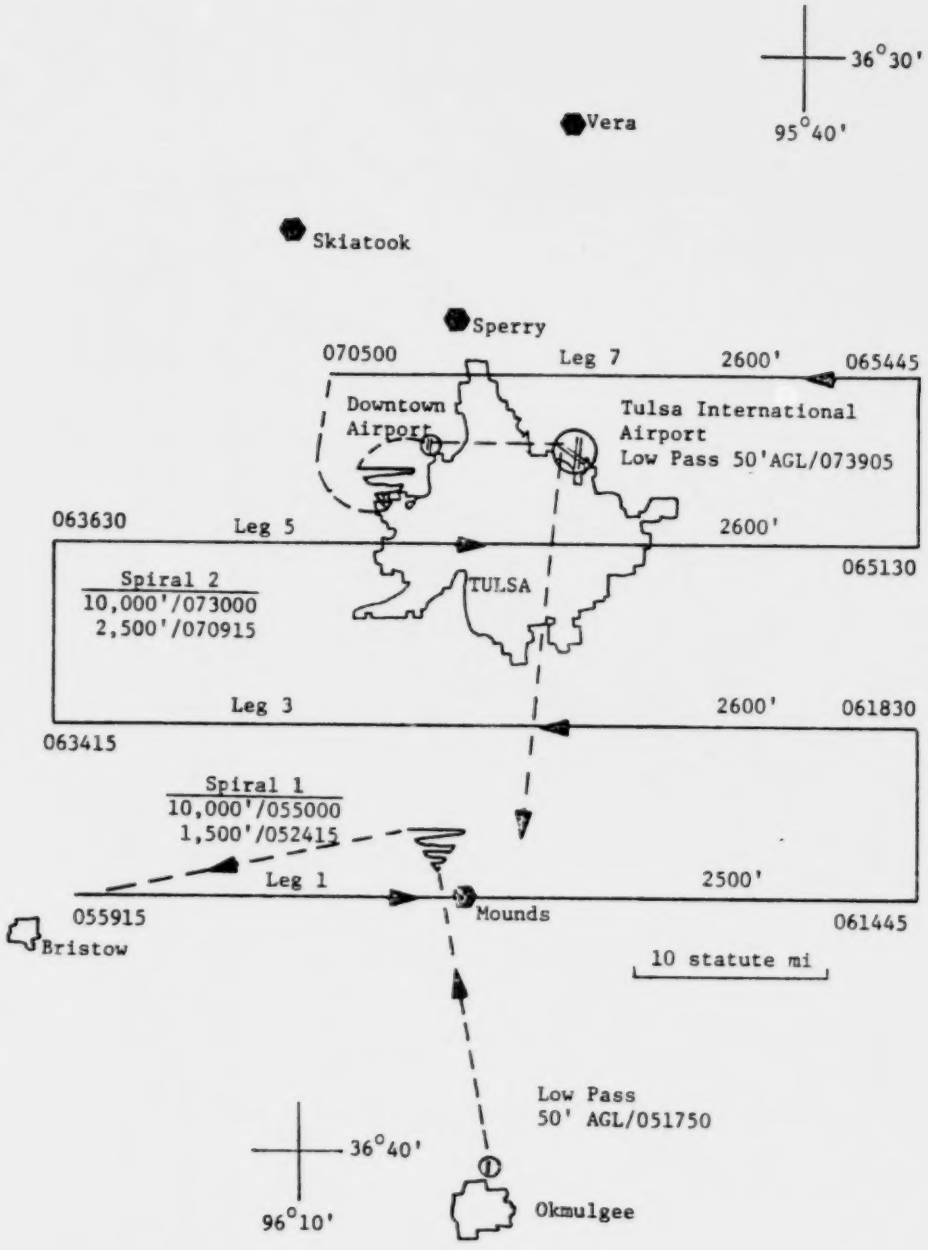

Figure 4.66. Tulsa Flight T16, September 11, 1977. AM Transport Pattern.

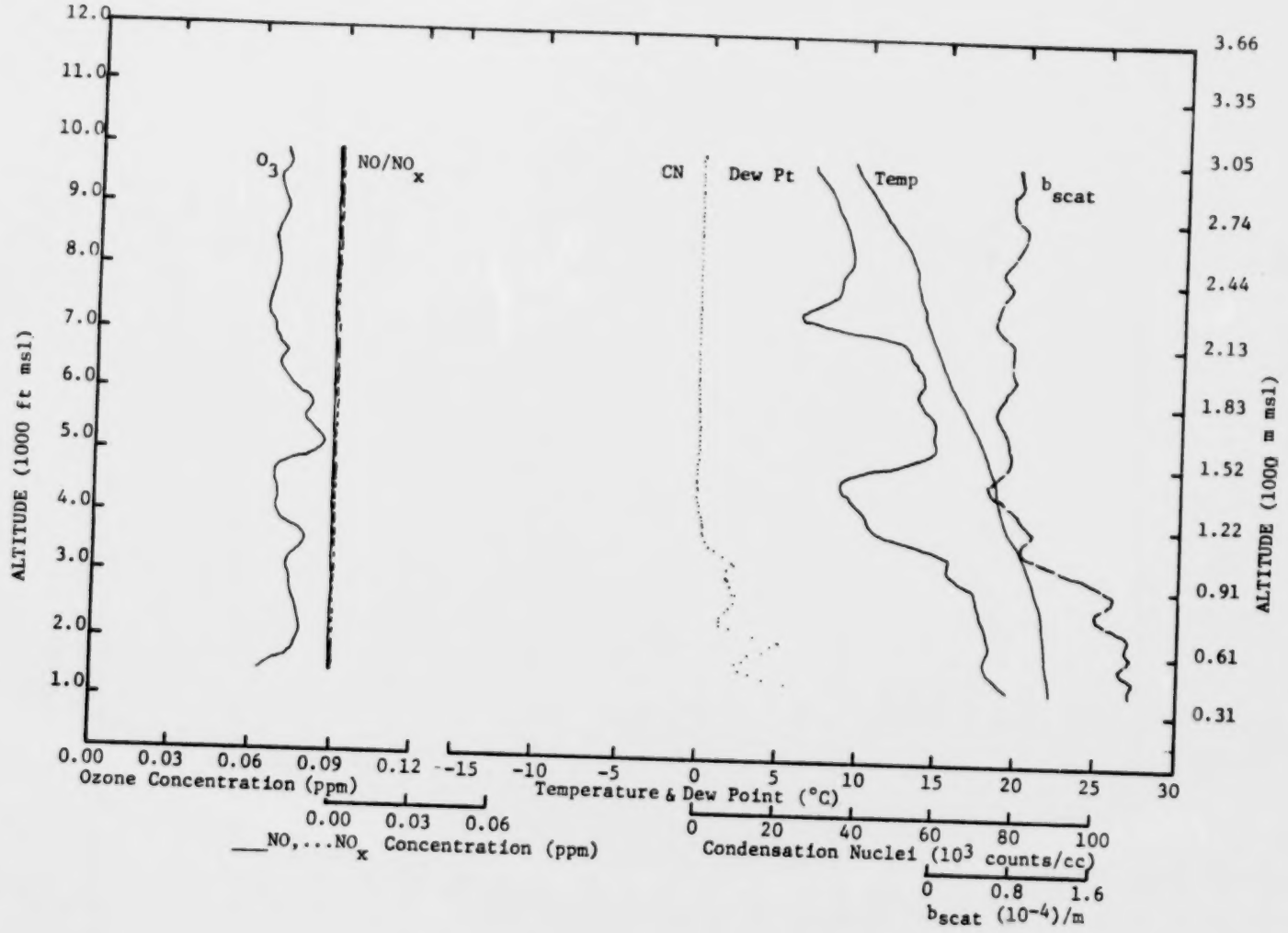

Figure 4.67. Tulsa Flight T16, September 11, 1977. Vertical Spiral, Liberty Mounds.

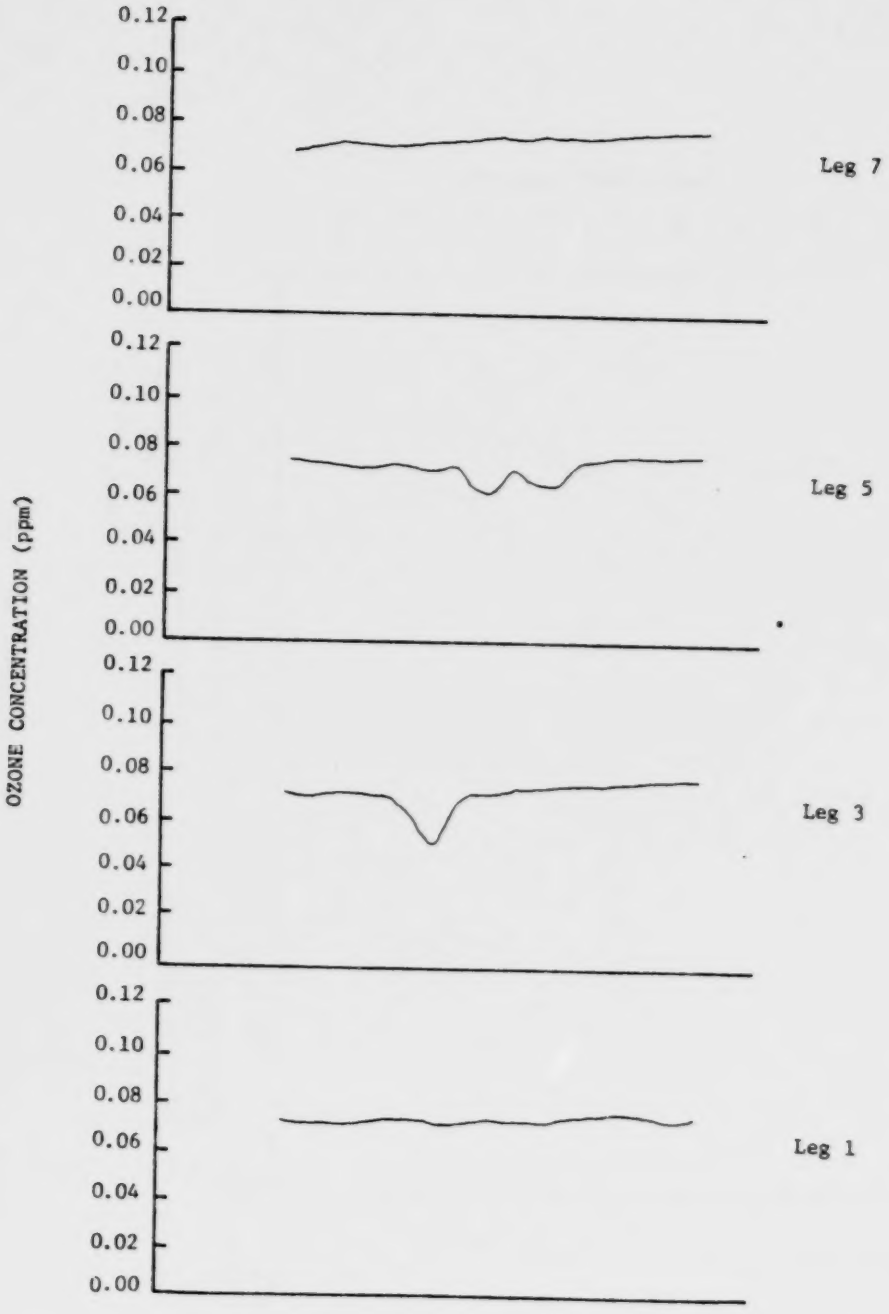

Figure 4.68. Tulsa Flight T16, September 11, 1977. Horizontal Traverse, Ozone Concentration.

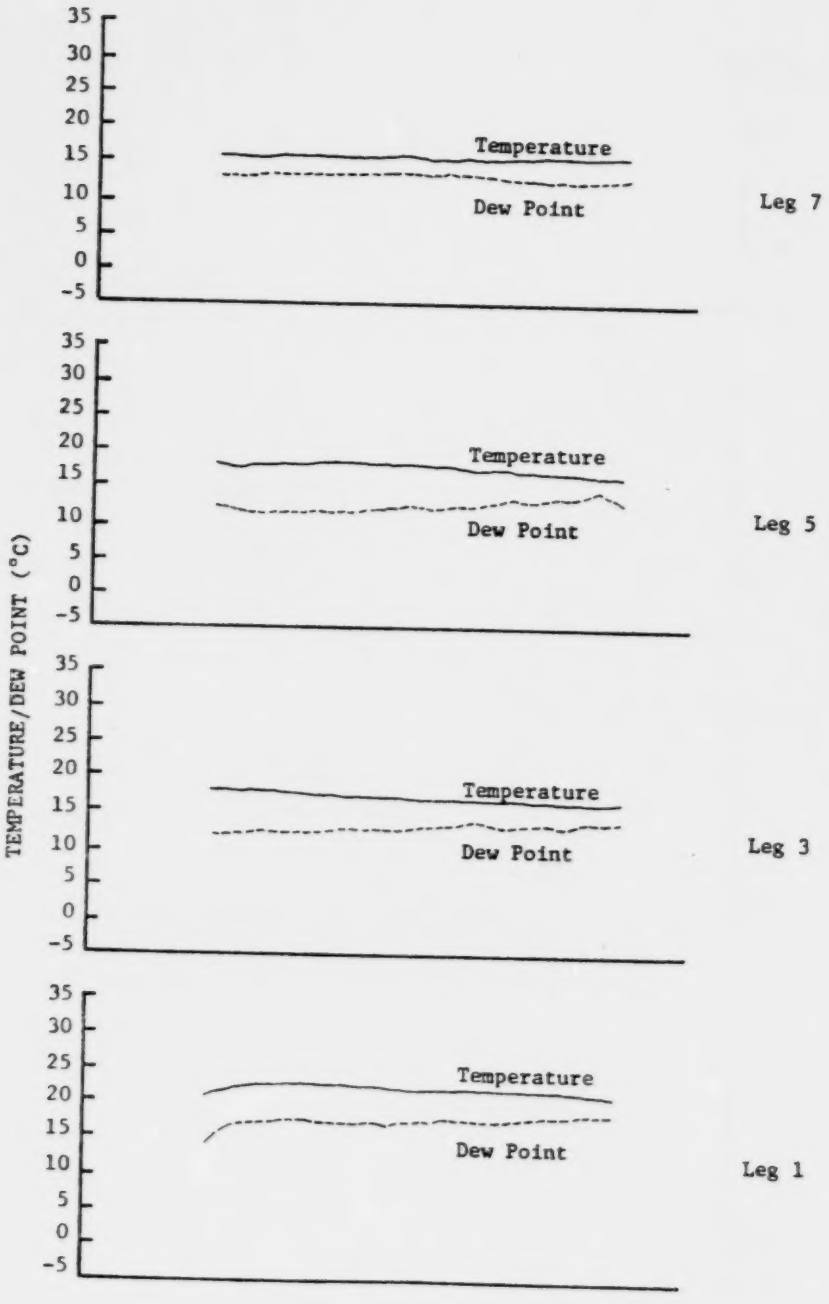

Figure 4.69. Tulsa Flight T16, September 11, 1977. Horizontal Traverse, Temperature and Dewpoint.

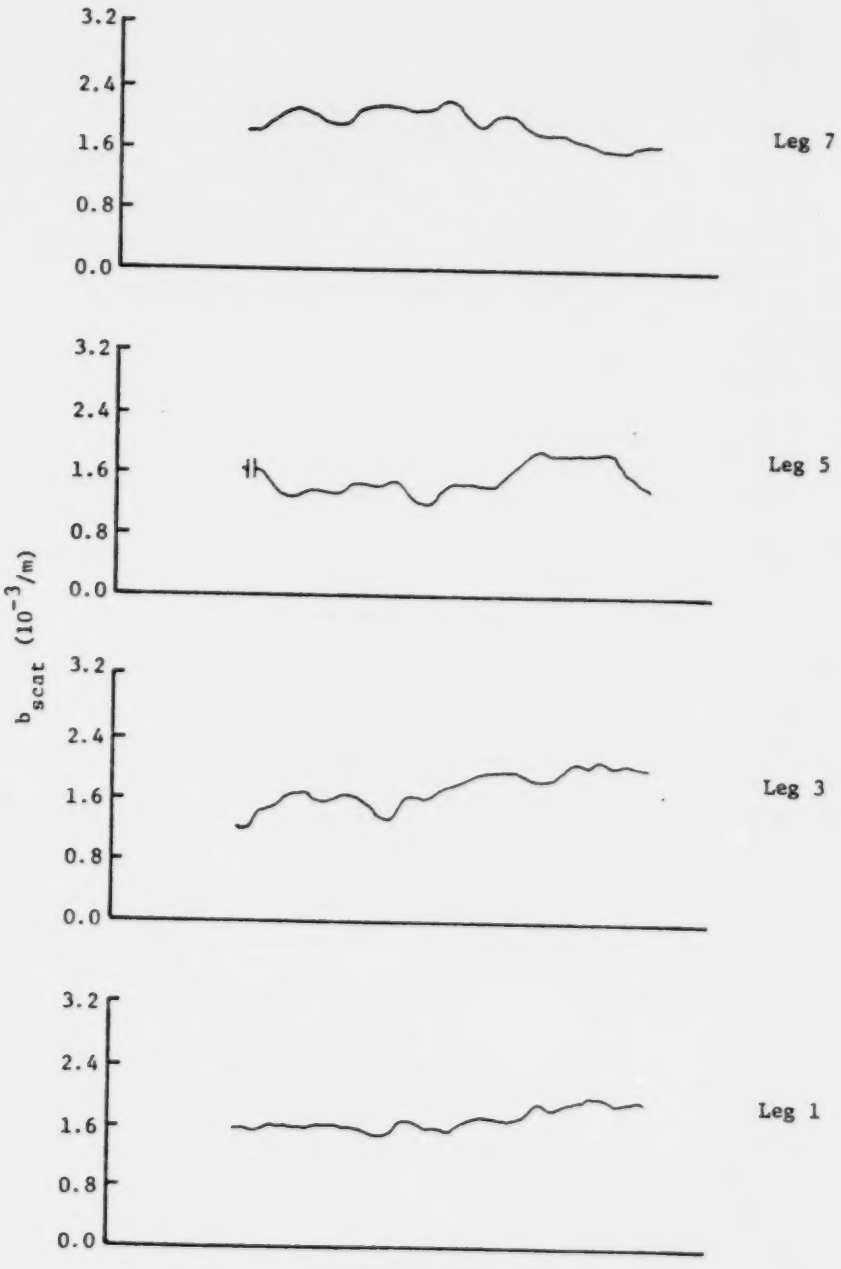

Figure 4.70. Tulsa Flight T16, September 11, 1977. Horizontal Traverse, b_{scat}.

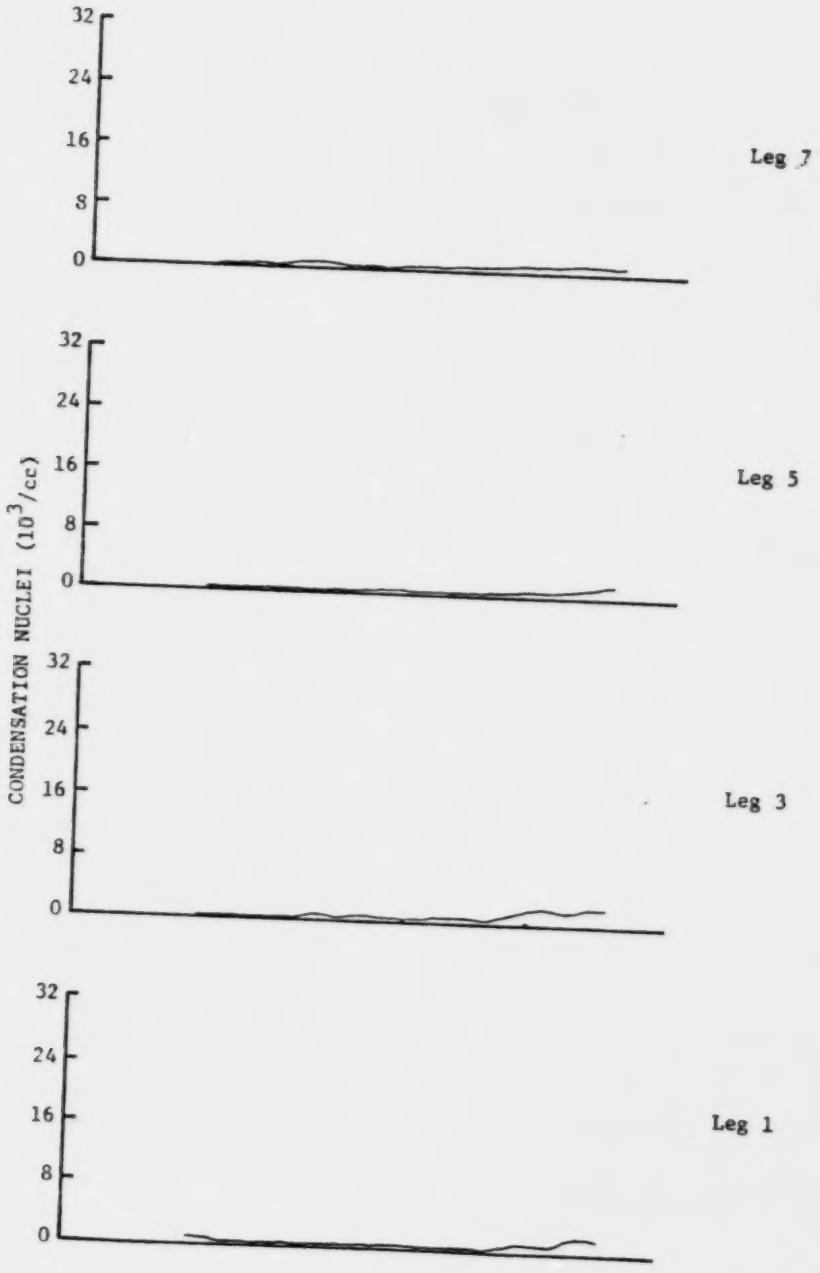

Figure 4.71. Tulsa Flight T16, September 11, 1977. Horizontal Traverse, Condensation Nuclei.

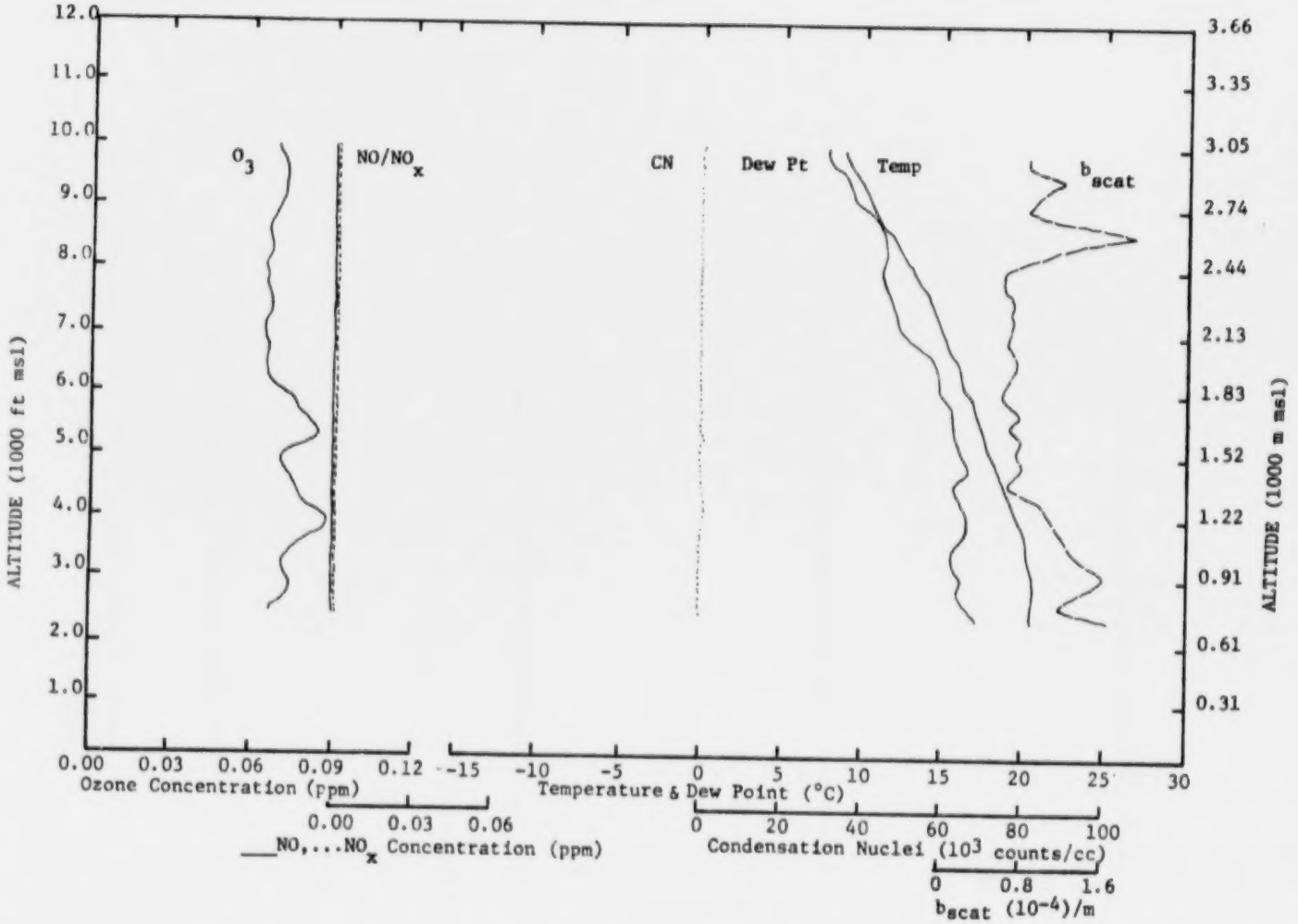

Figure 4.72. Tulsa Flight T16, September 11, 1977. Vertical Spiral, Central Business District.

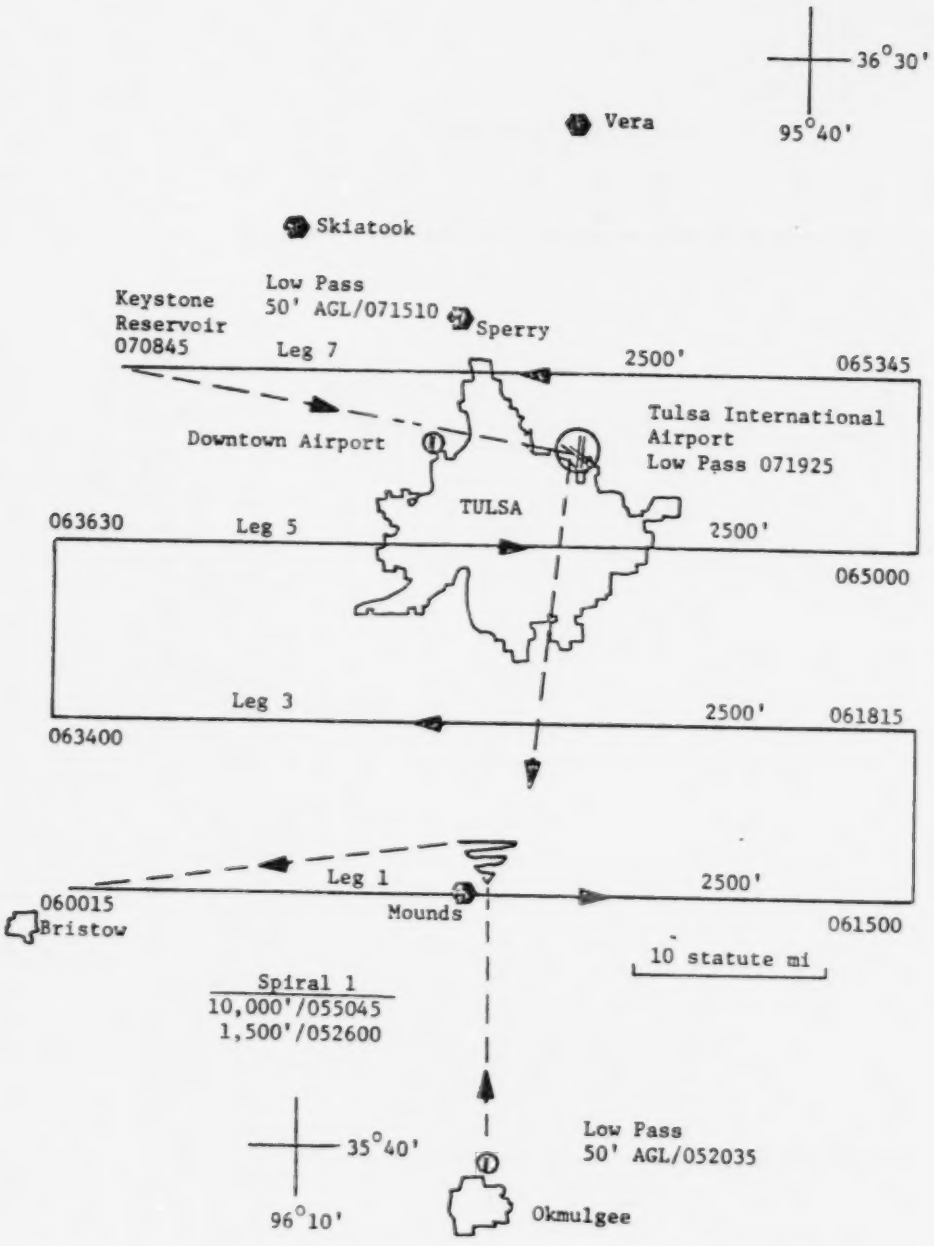

Figure 4.73. Tulsa Flight T17, September 16, 1977. AM Transport Pattern.

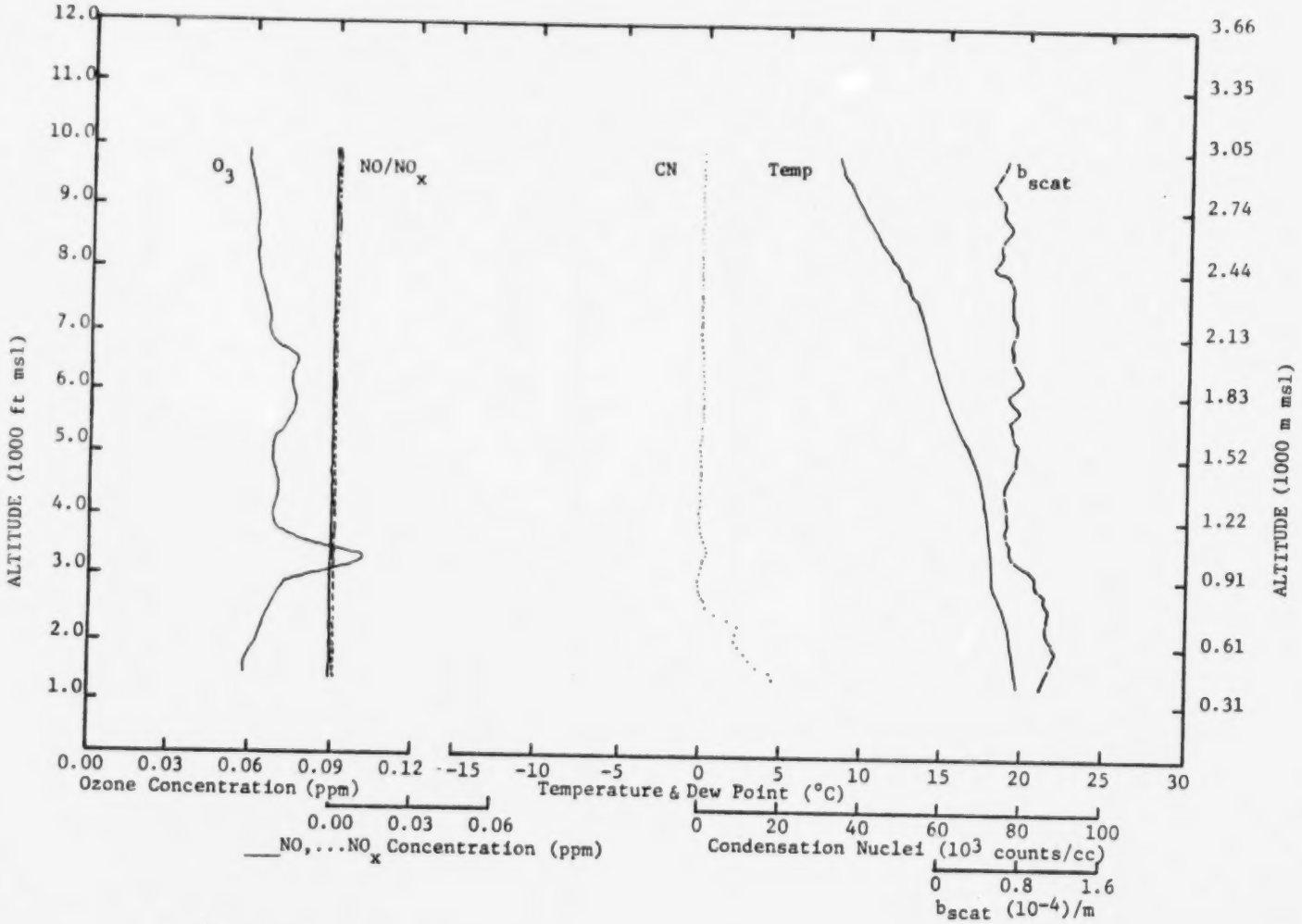

Figure 4.74. Tulsa Flight T17, September 16, 1977.
Vertical Spiral, Liberty Mounds.

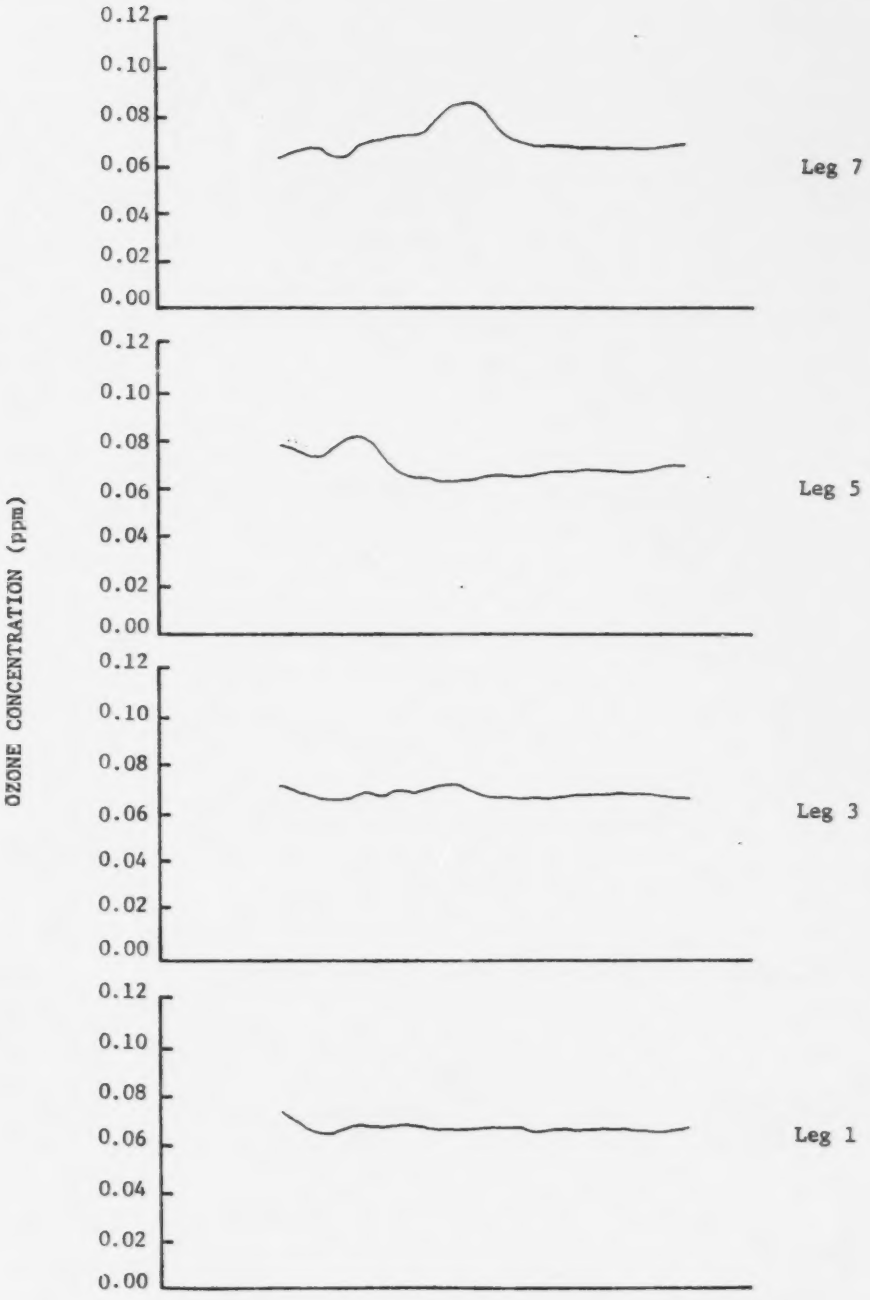

Figure 4.75. Tulsa Flight T17, September 16, 1977. Horizontal Traverse, Ozone Concentration.

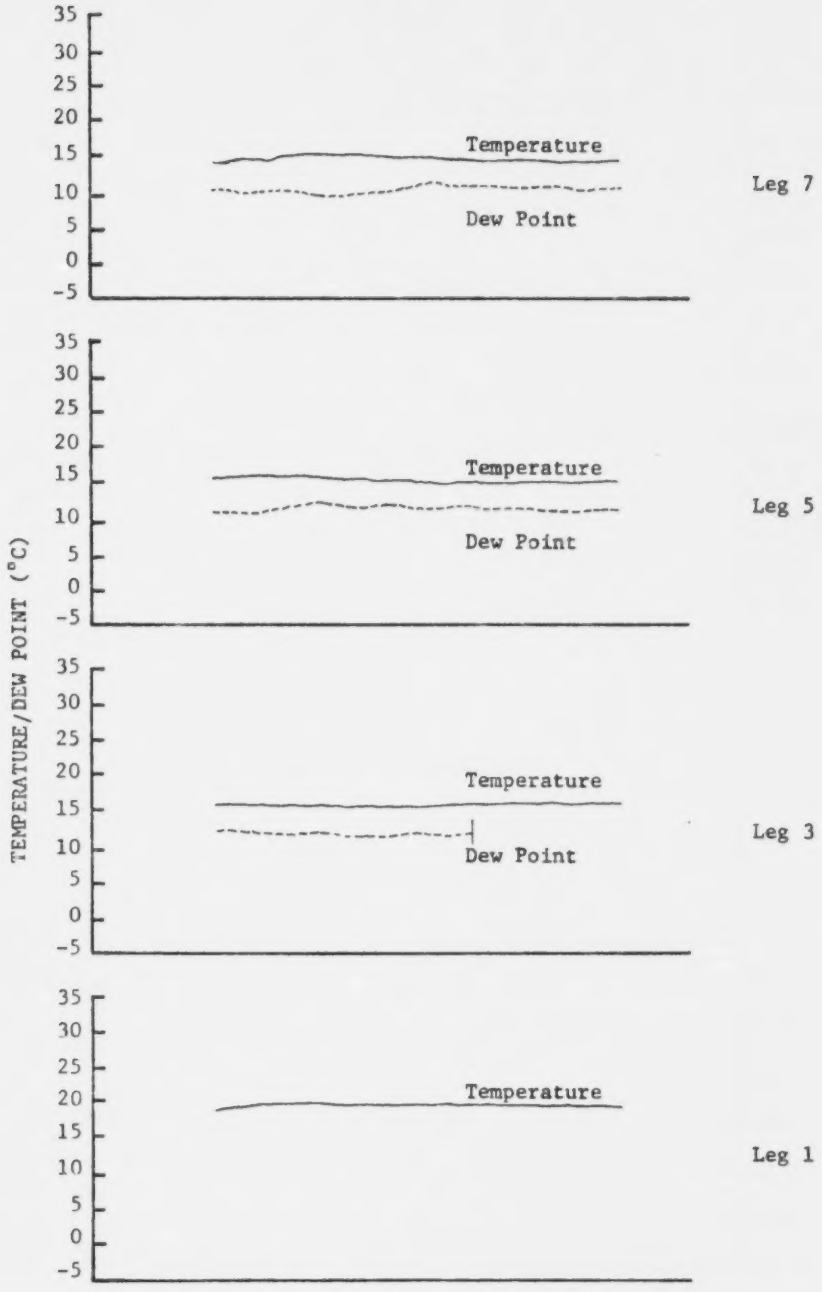

Figure 4.76. Tulsa Flight T17, September 16, 1977. Horizontal Traverse, Temperature and Dewpoint.

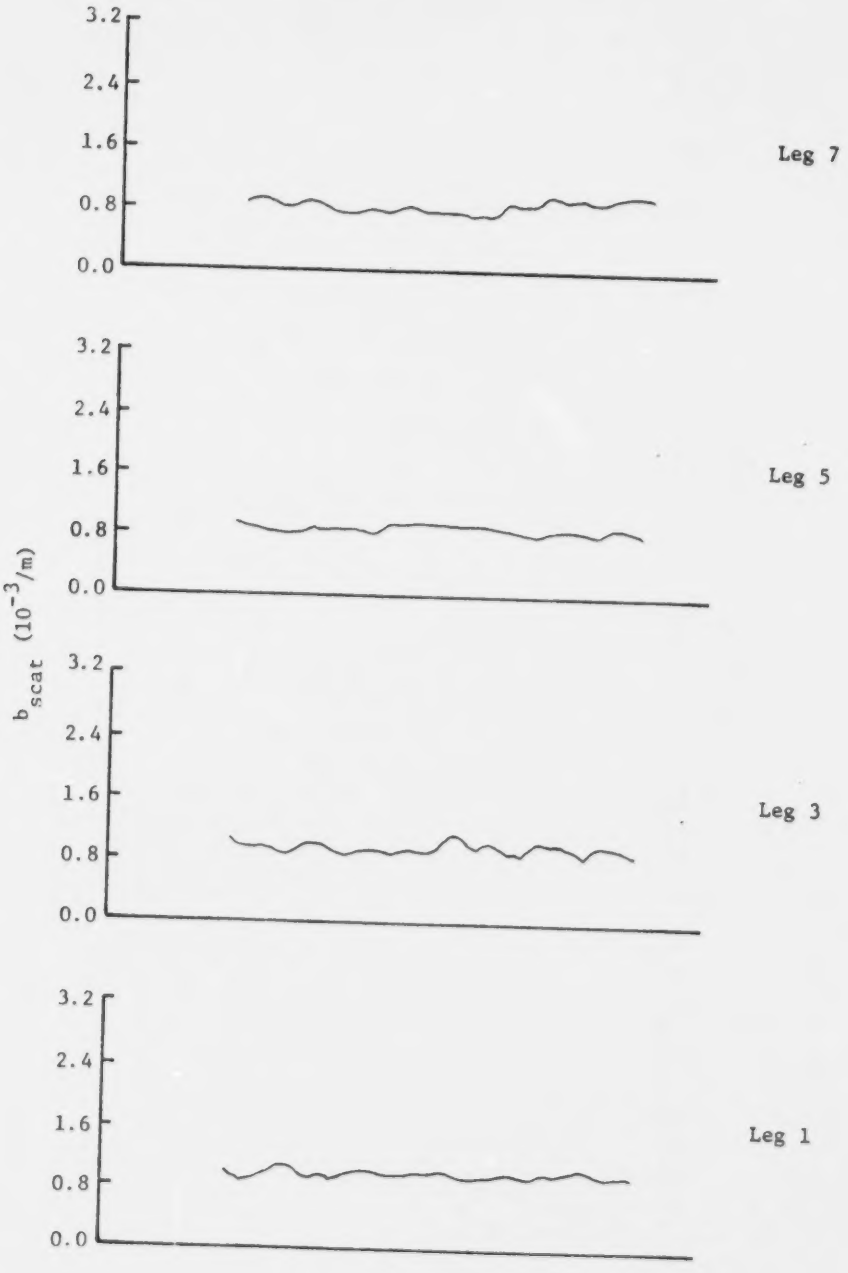

Figure 4.77. Tulsa Flight T17, September 16, 1977. Horizontal Traverse, b_{scat}.

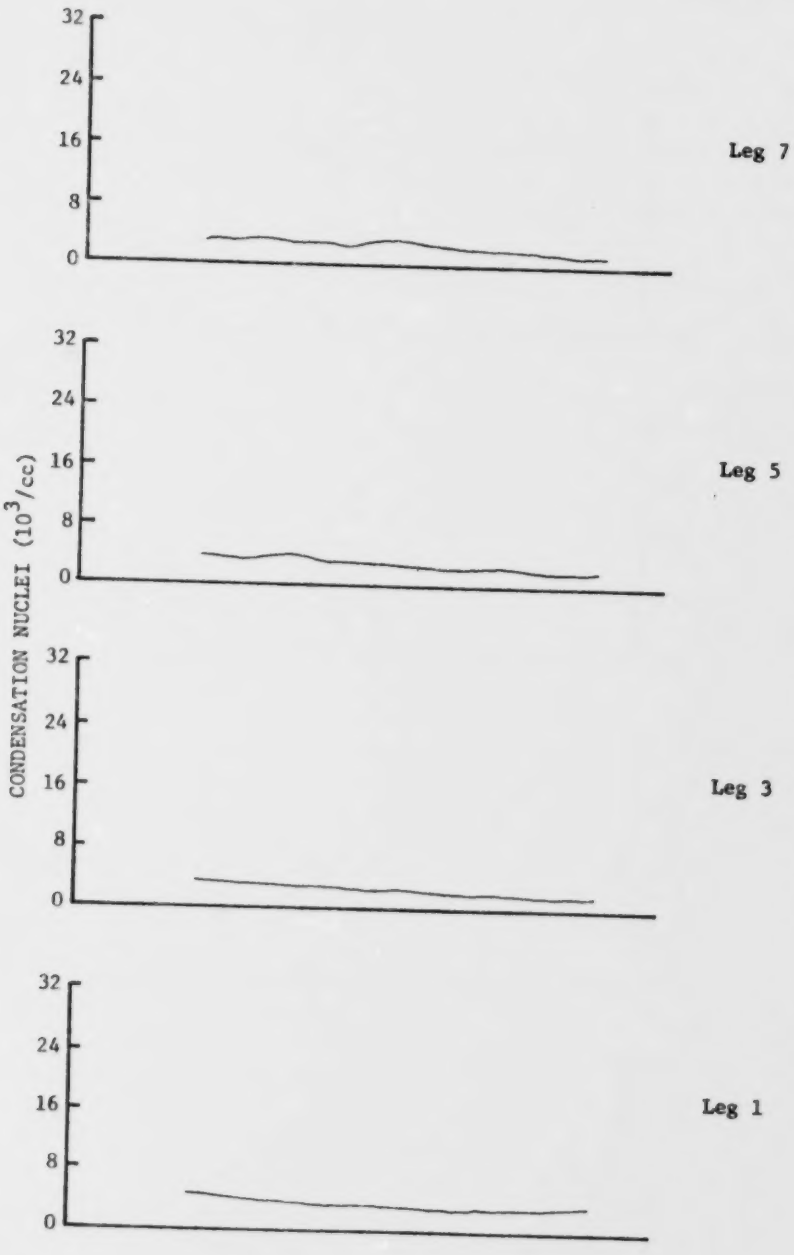

Figure 4.78. Tulsa Flight T17, September 16, 1977. Horizontal Traverse, Condensation Nuclei.

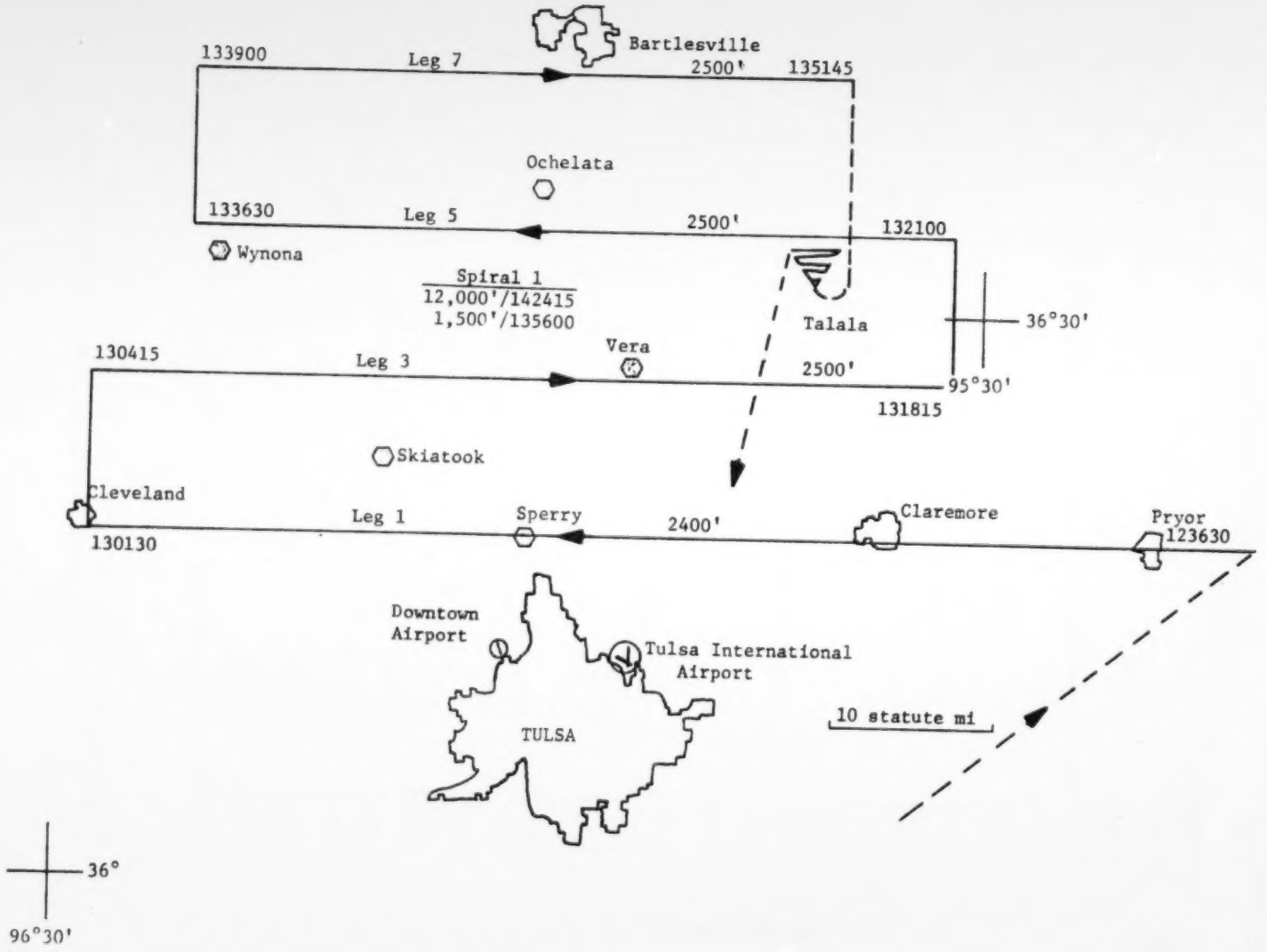

Figure 4.79. Tulsa Flight T18, September 16, 1978. PM Transport Pattern.

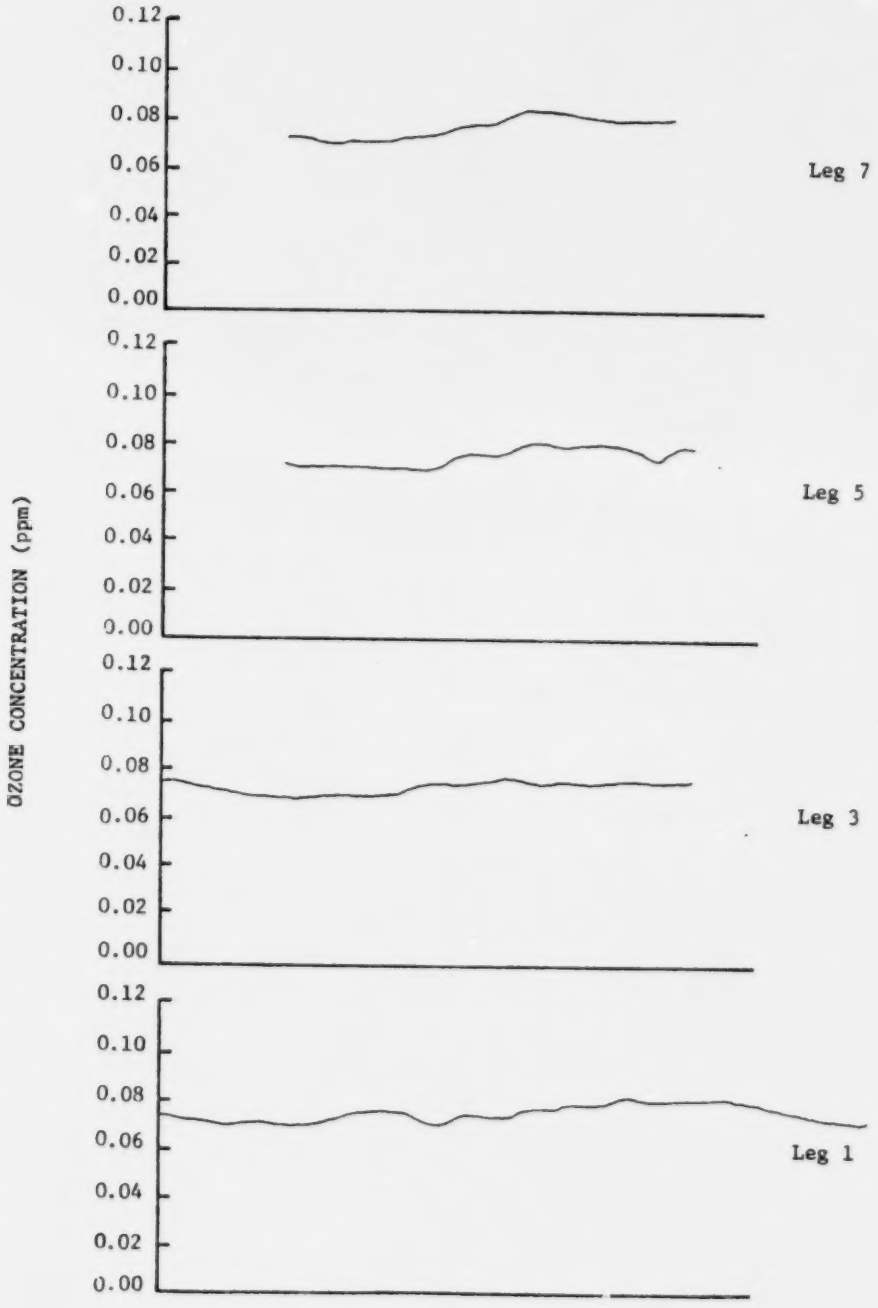

Figure 4.80. Tulsa Flight T18, September 16, 1978. Horizontal Traverse, Ozone Concentration.

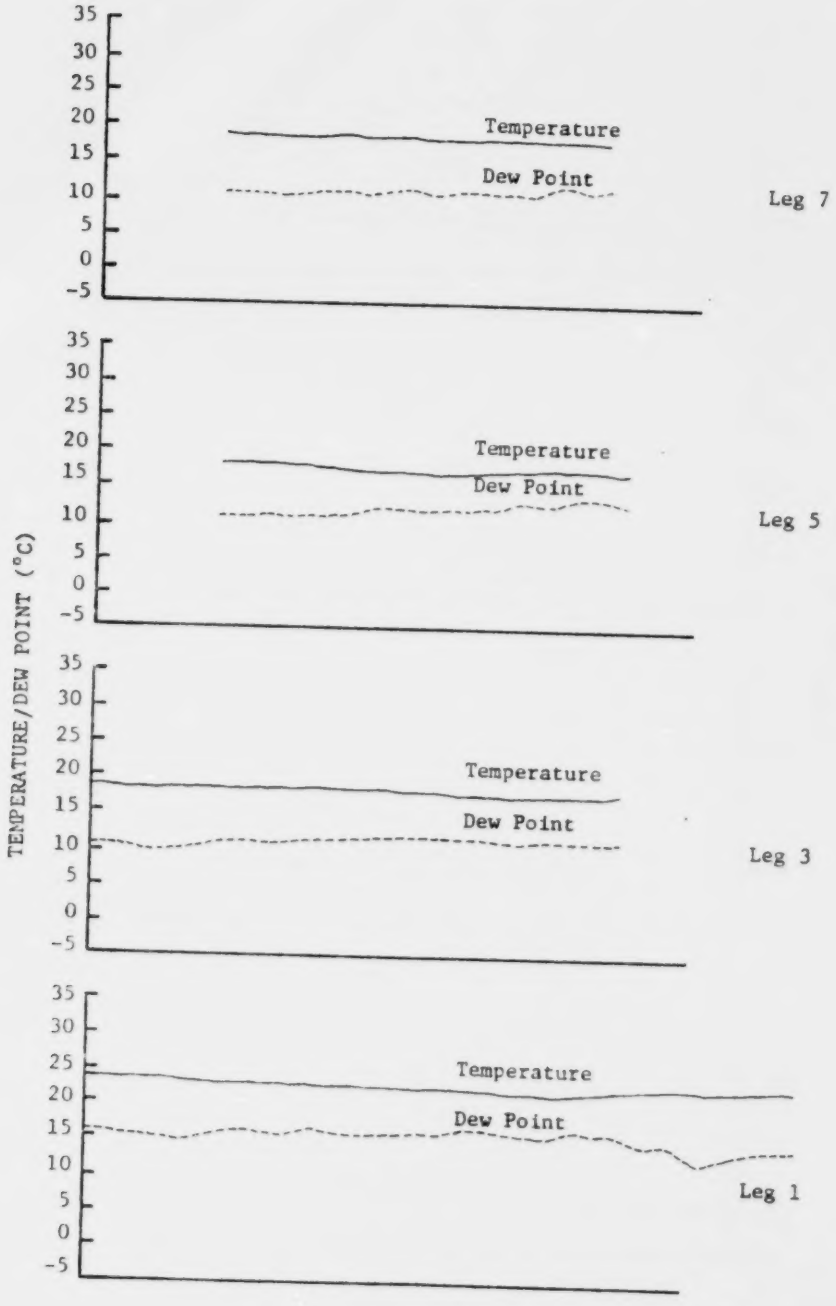

Figure 4.81. Tulsa Flight T18, September 16, 1978. Horizontal Traverse, Temperature and Dewpoint.

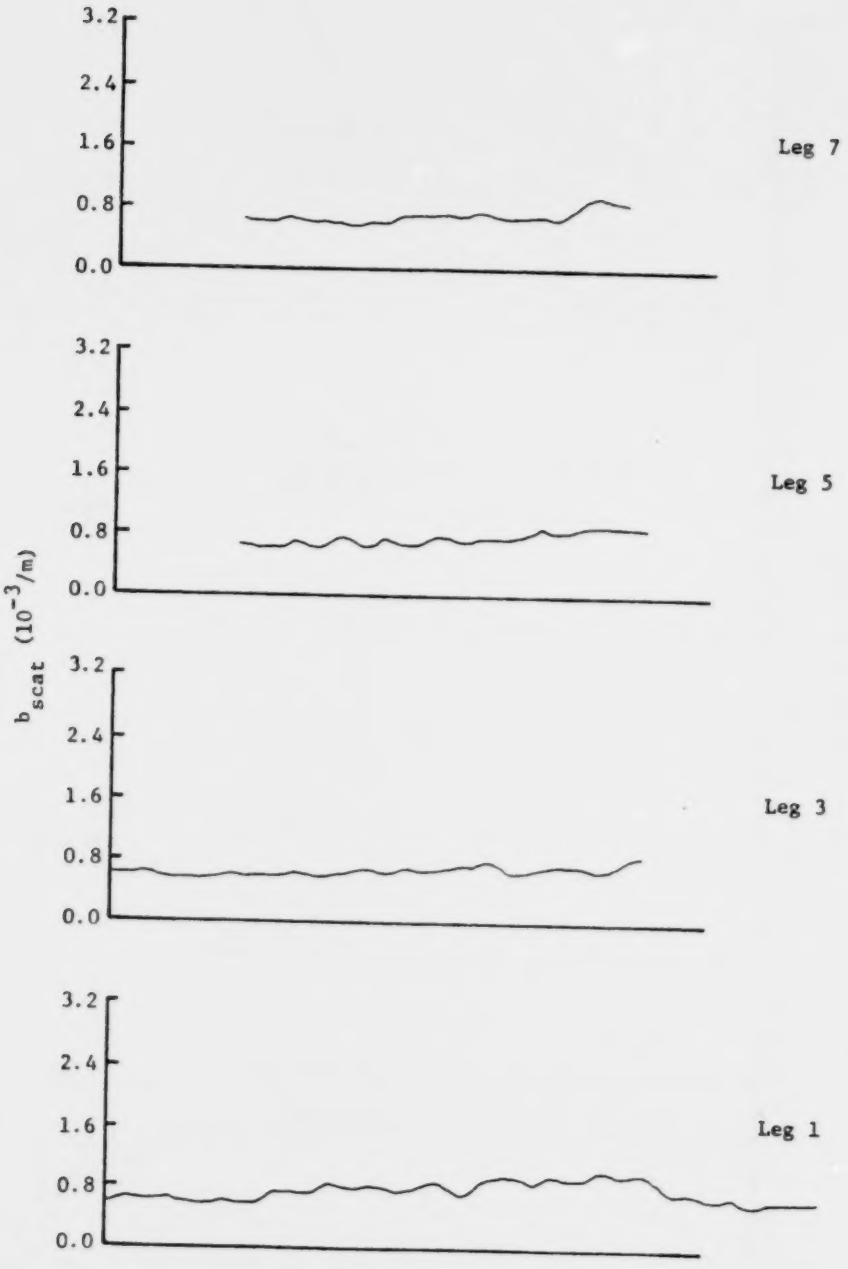

Figure 4.82. Tulsa Flight T18, September 16, 1978. Horizontal Traverse, b_{scat}.

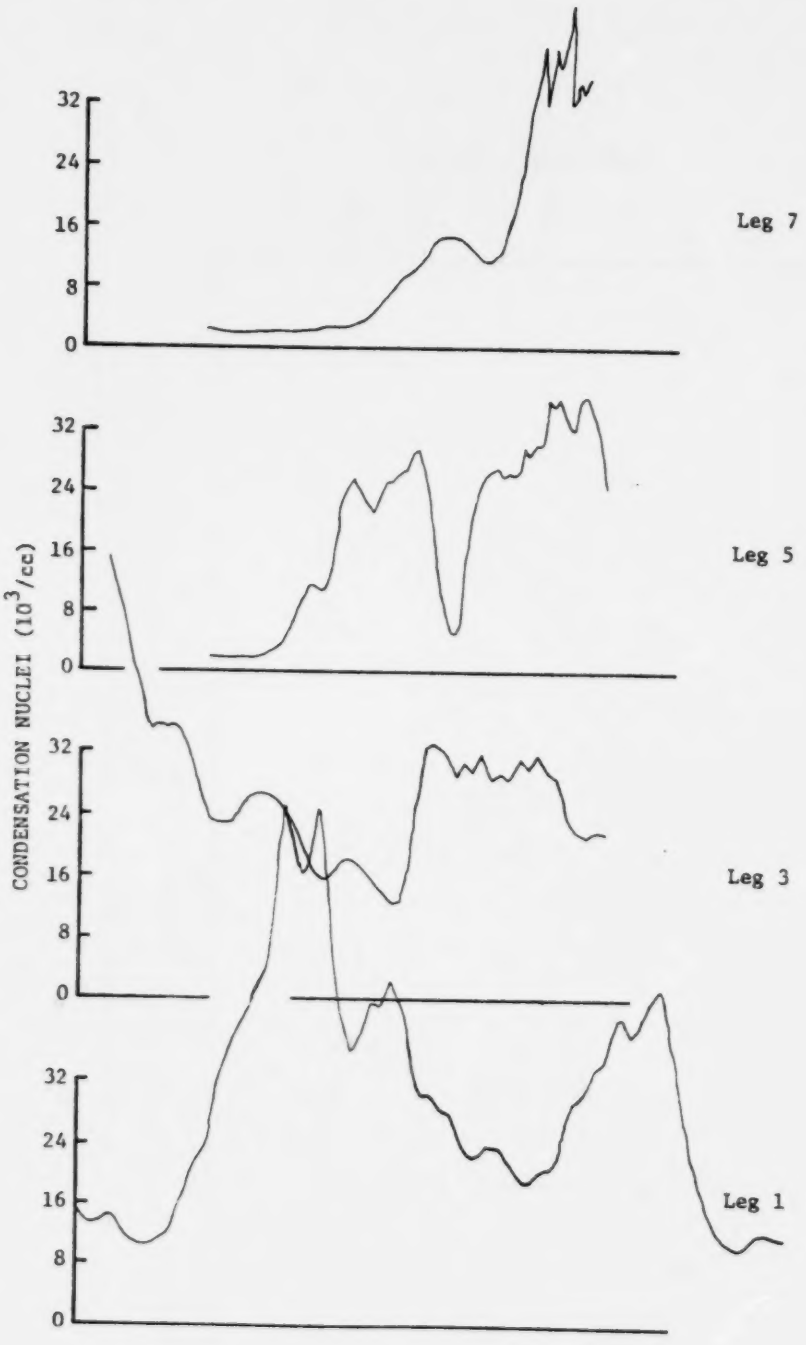

Figure 4.83. Tulsa Flight T18, September 16, 1978. Horizontal Traverse, Condensation Nuclei.

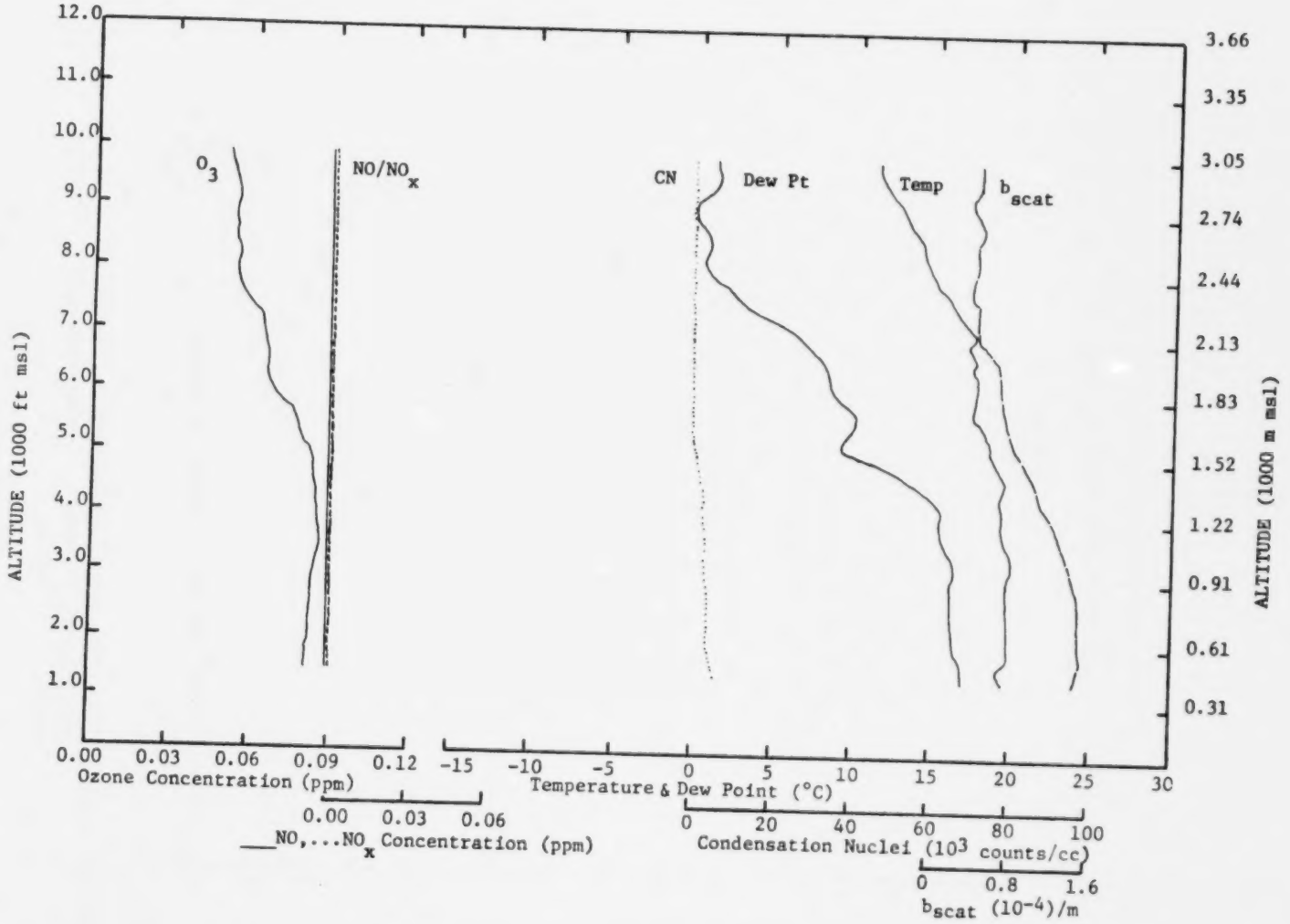

Figure 4.84. Tulsa Flight T18, September 16, 1978. Vertical Spiral, Talala.

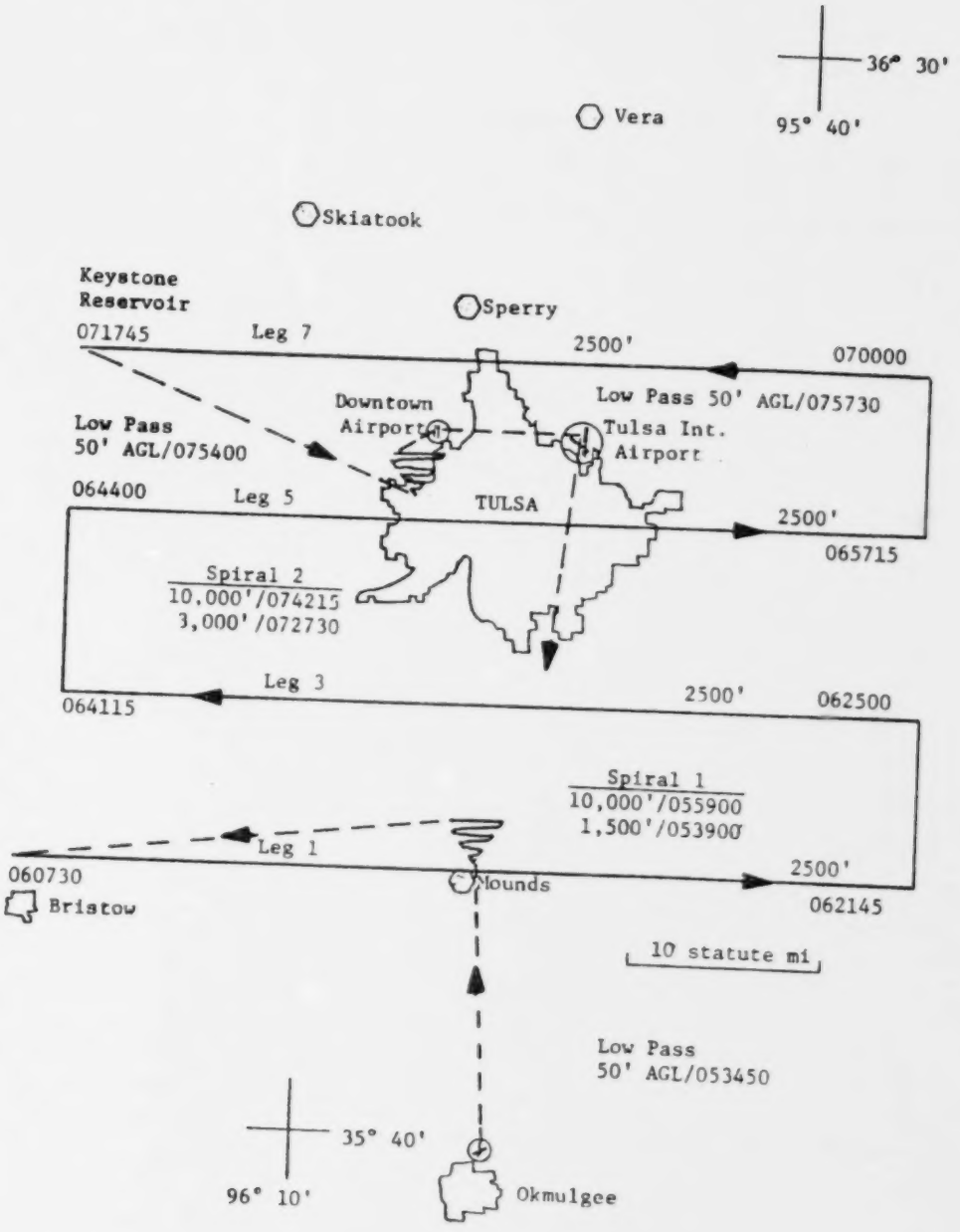

Figure 4.85. Tulsa Flight T19, September 17, 1977. AM Transport Pattern.

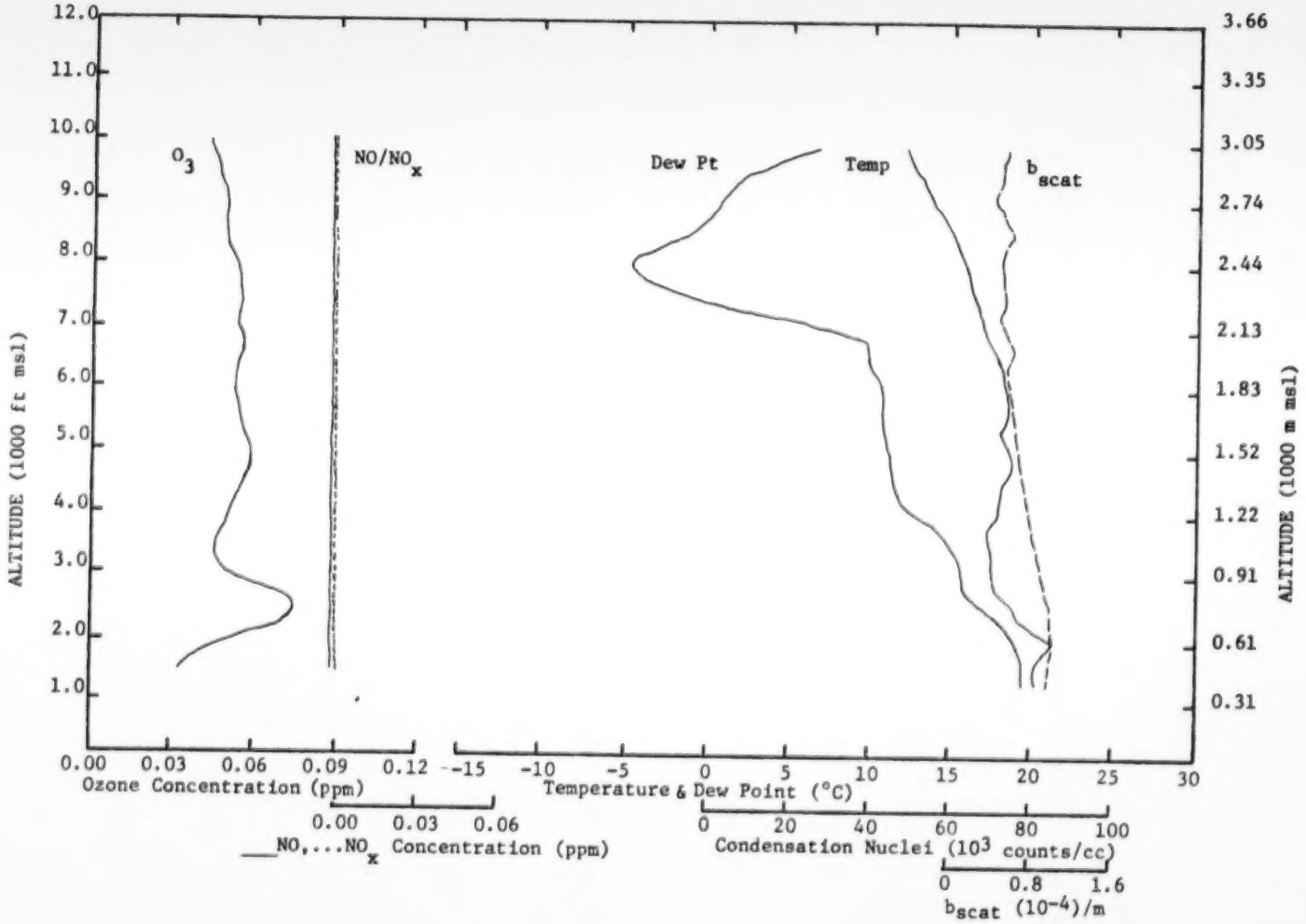

Figure 4.86. Tulsa Flight T19, September 17, 1977. Vertical Spiral, Liberty Mounds.

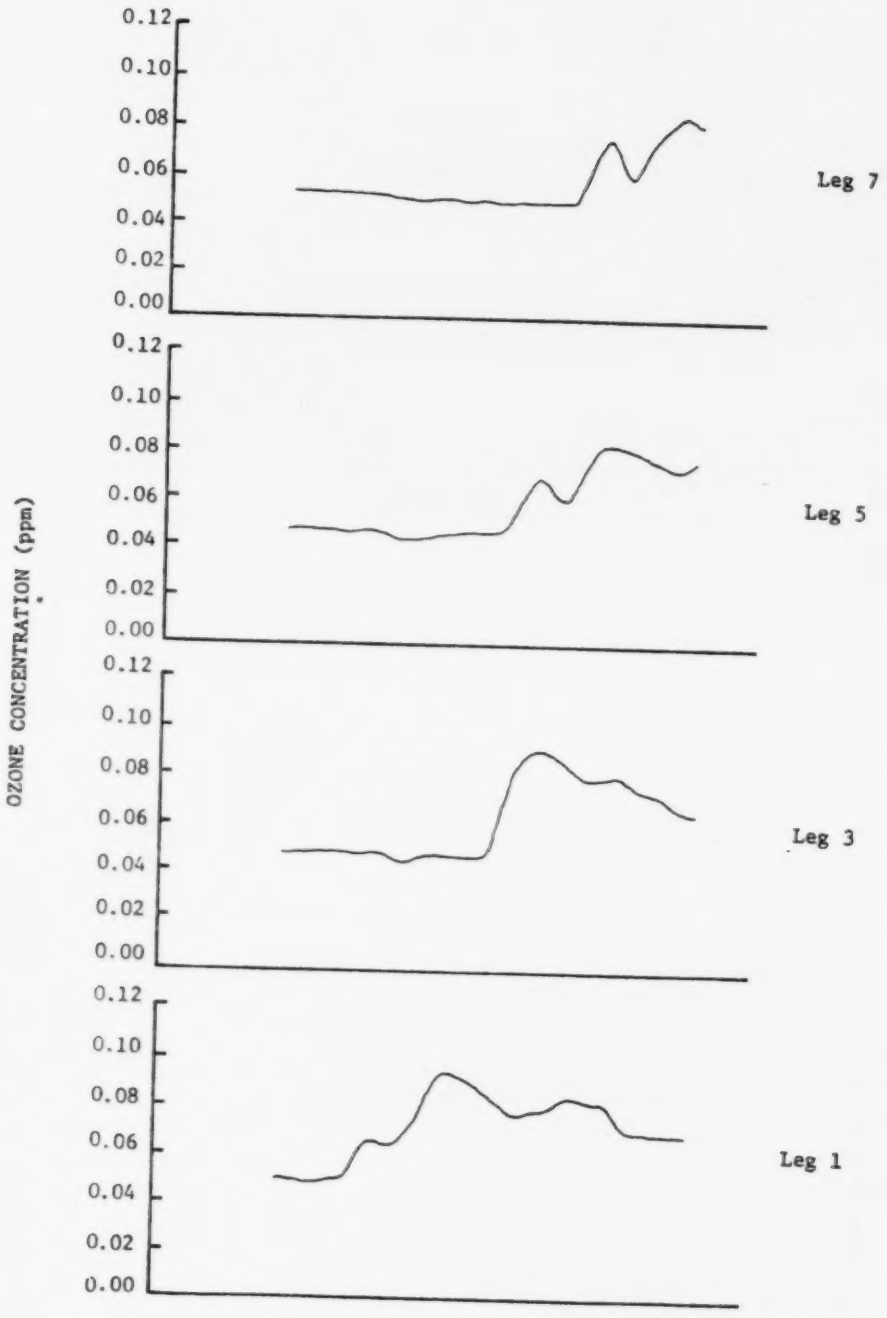

Figure 4.87. Tulsa Flight T19, September 17, 1977. Horizontal Traverse, Ozone Concentration.

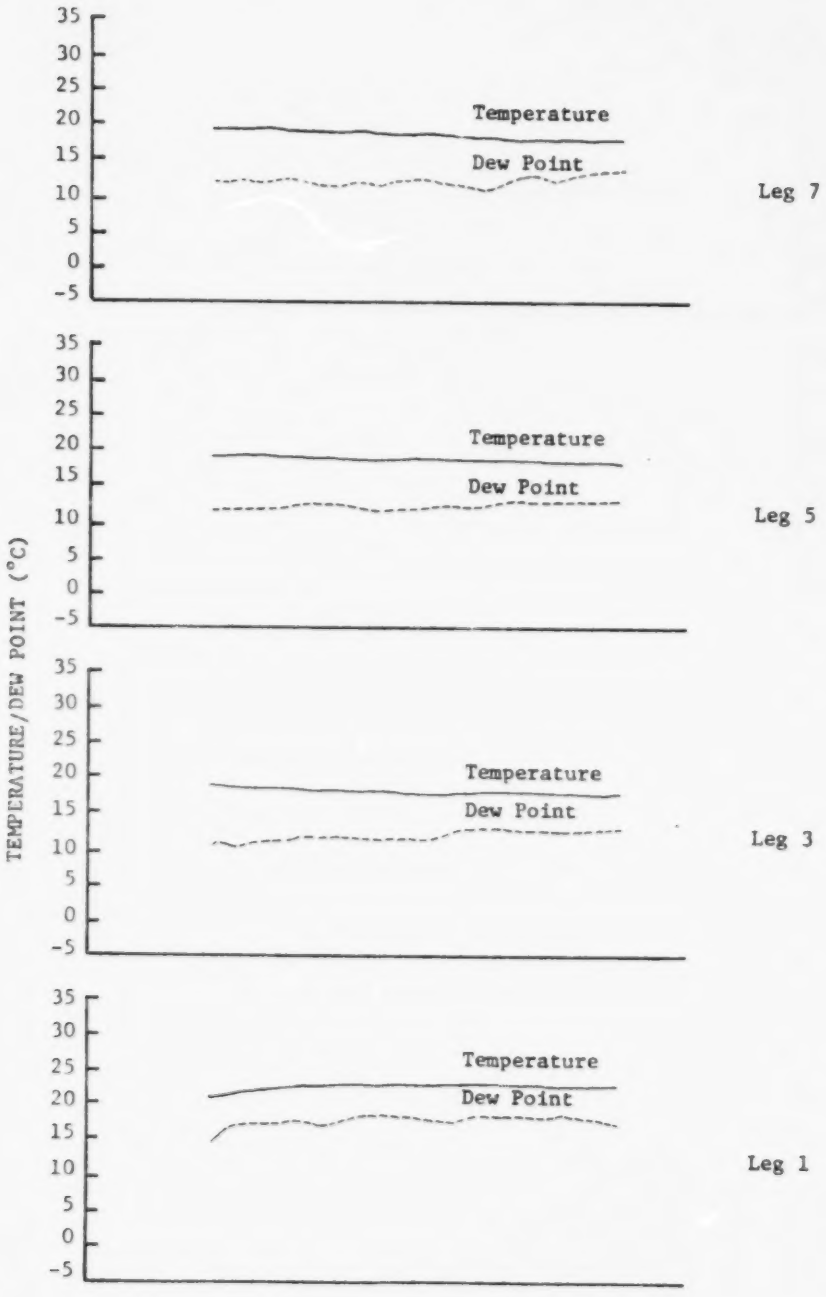

Figure 4.88. Tulsa Flight T19, September 17, 1977. Horizontal Traverse, Temperature and Dewpoint.

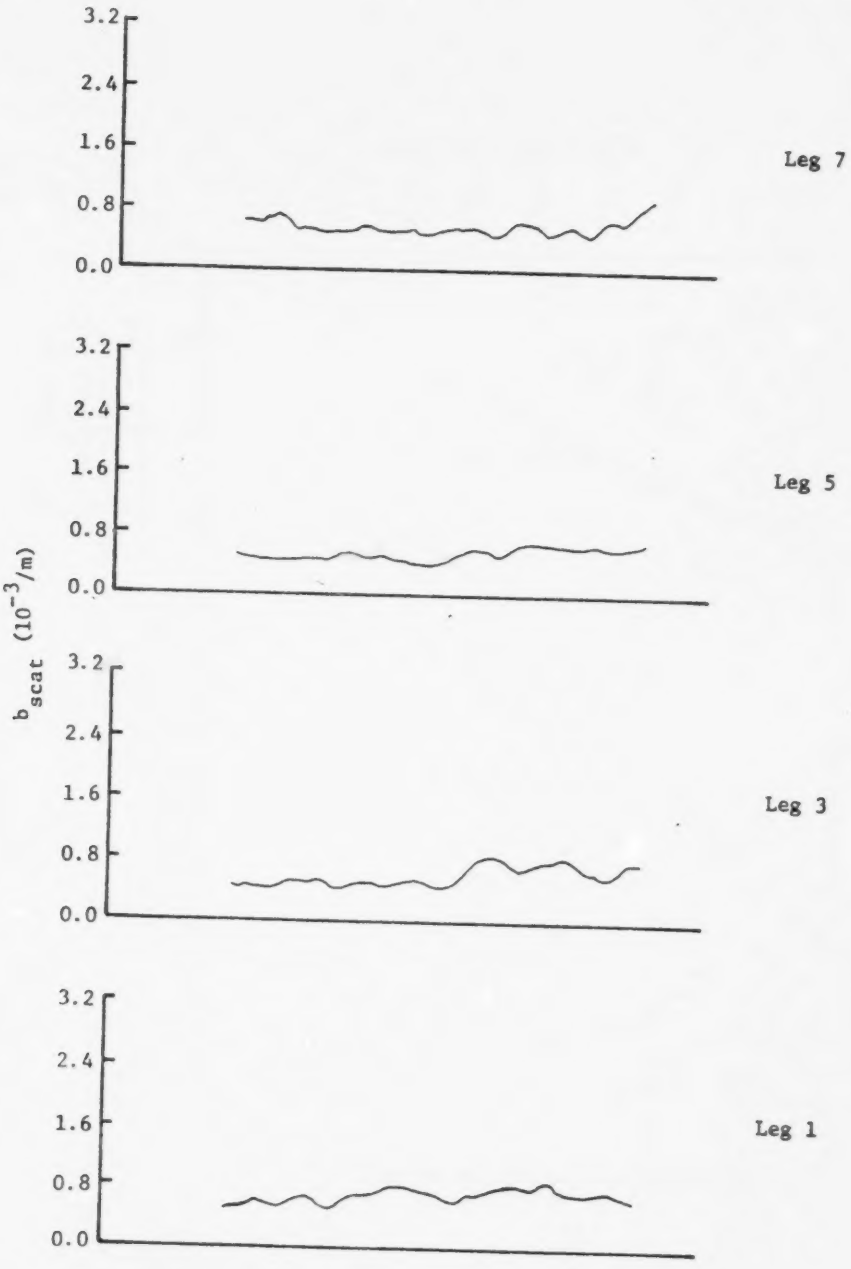

Figure 4.89. Tulsa Flight T19, September 17, 1977. Horizontal Traverse, b_{scat}.

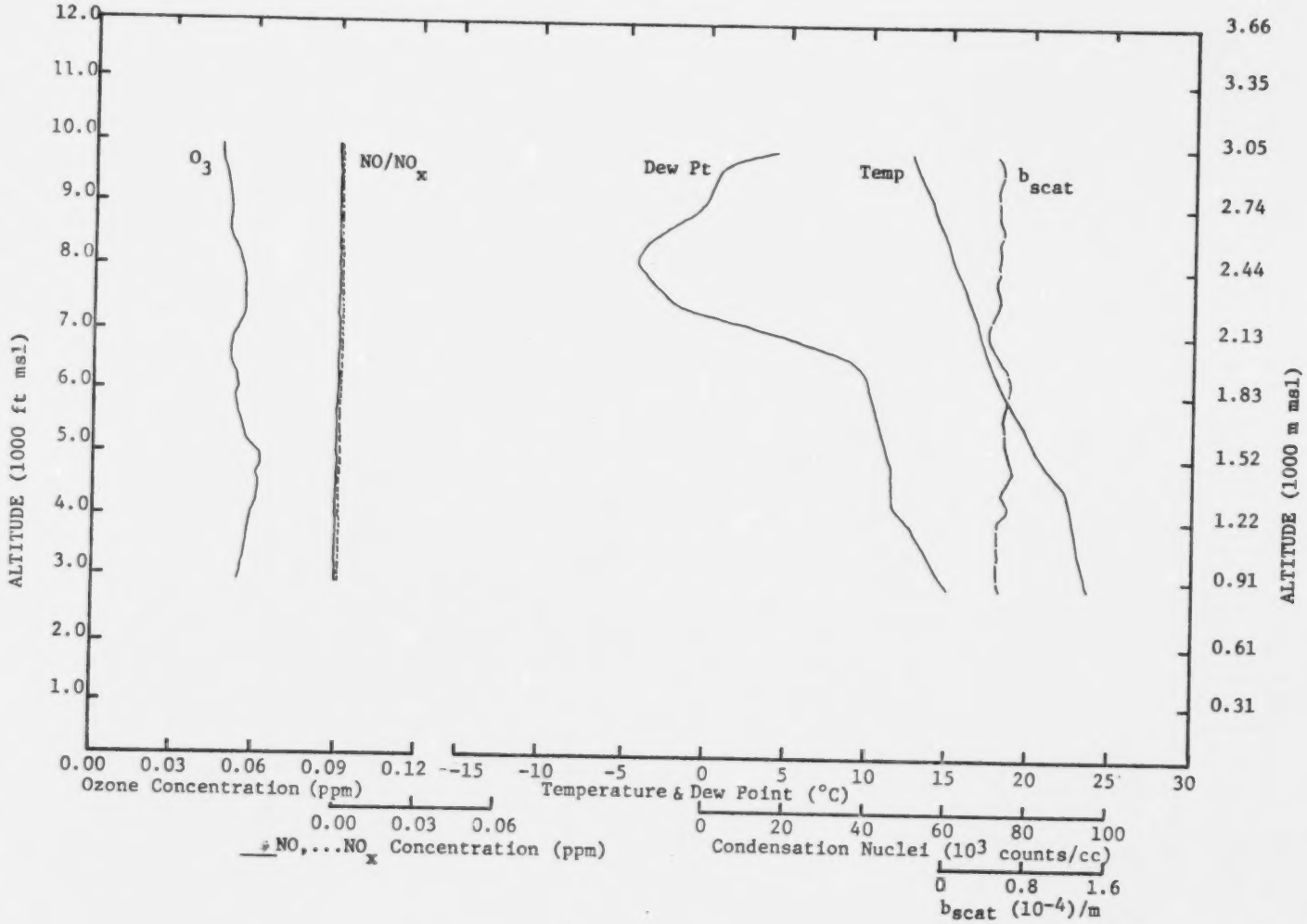

Figure 4.90. Tulsa Flight T19, September 17, 1977.
Vertical Spiral, Central Business District.

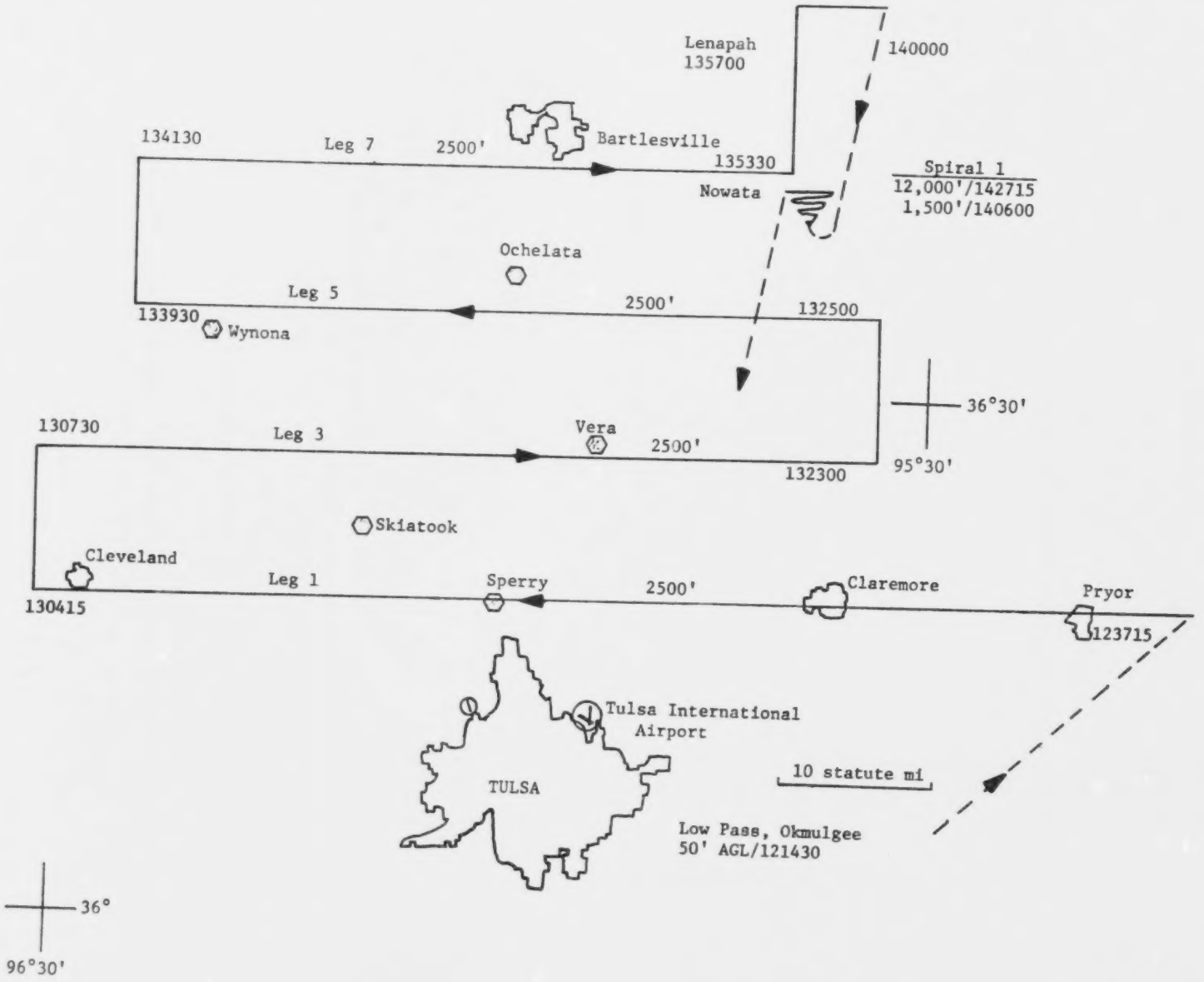

Figure 4.91. Tulsa Flight T20, September 17, 1977. PM Transport Pattern.

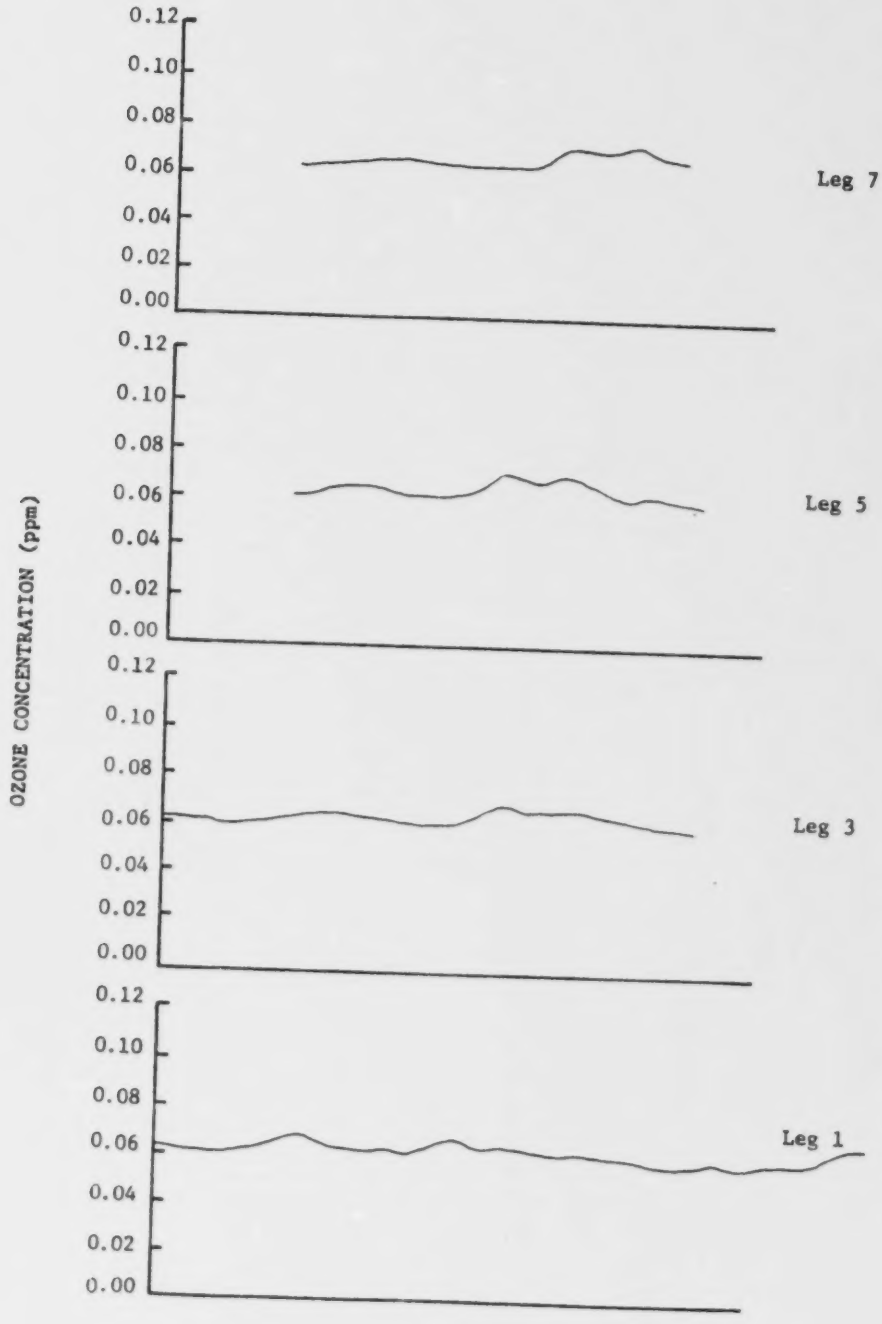

Figure 4.92. Tulsa Flight T20, September 17, 1977. Horizontal Traverse, Ozone Concentration.

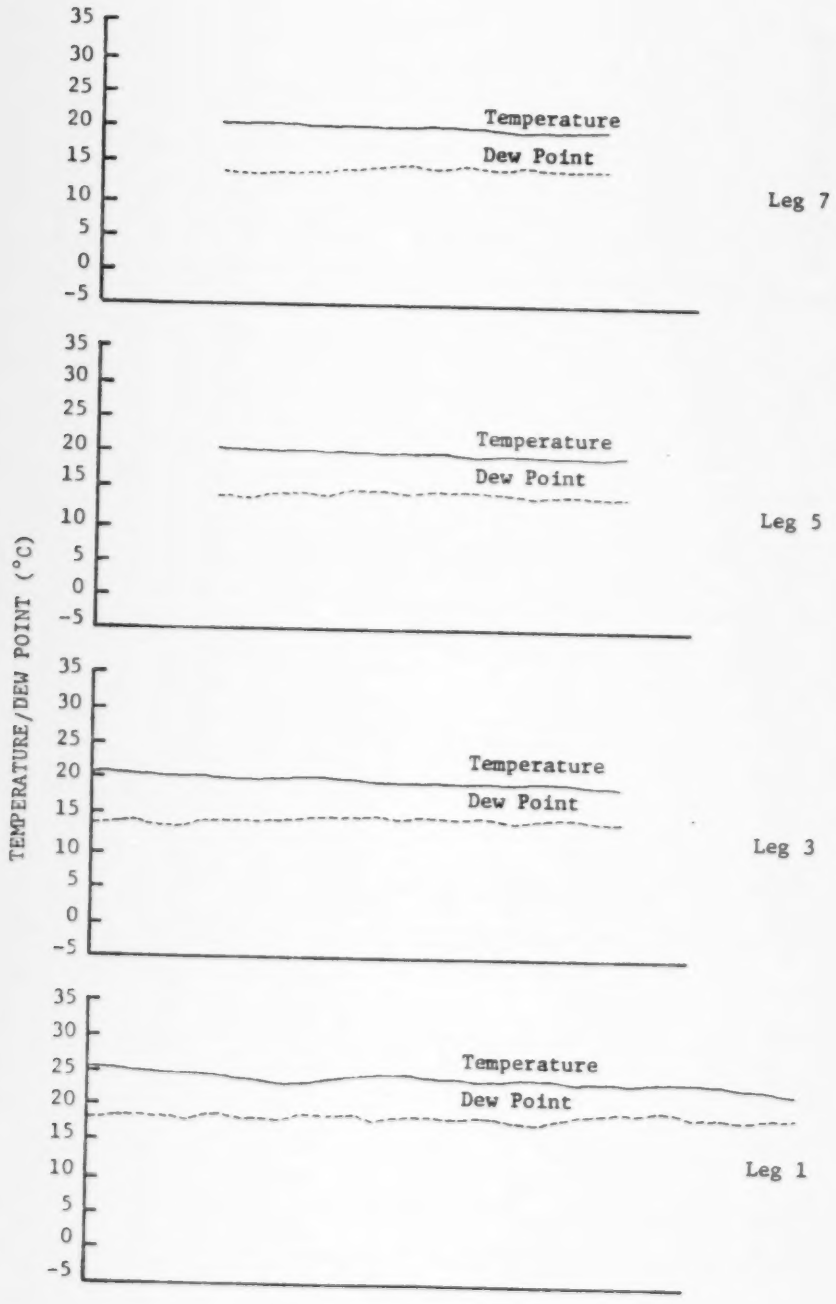

Figure 4.93. Tulsa Flight T20, September 17, 1977. Horizontal Traverse, Temperature and Dewpoint.

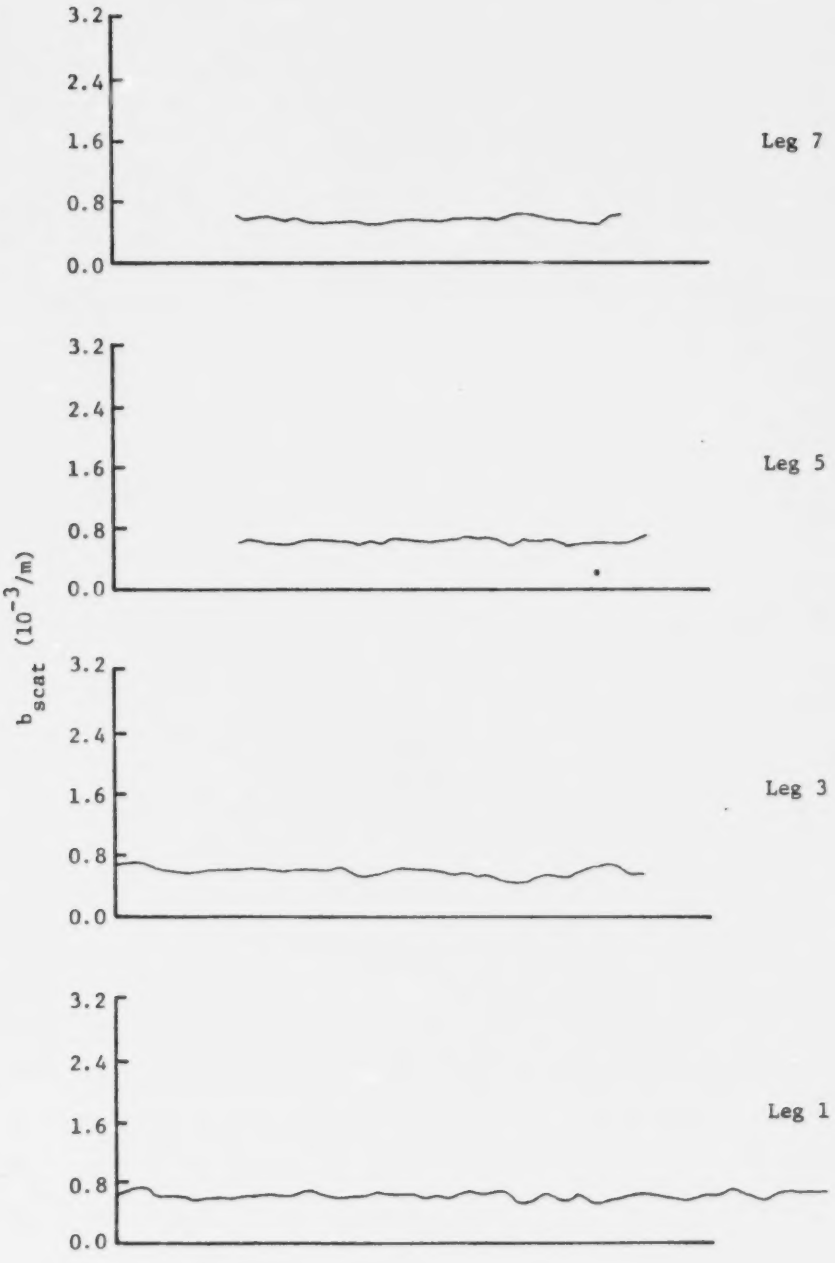

Figure 4.94. Tulsa Flight T20, September 17, 1977. Horizontal Traverse, b_{scat}.

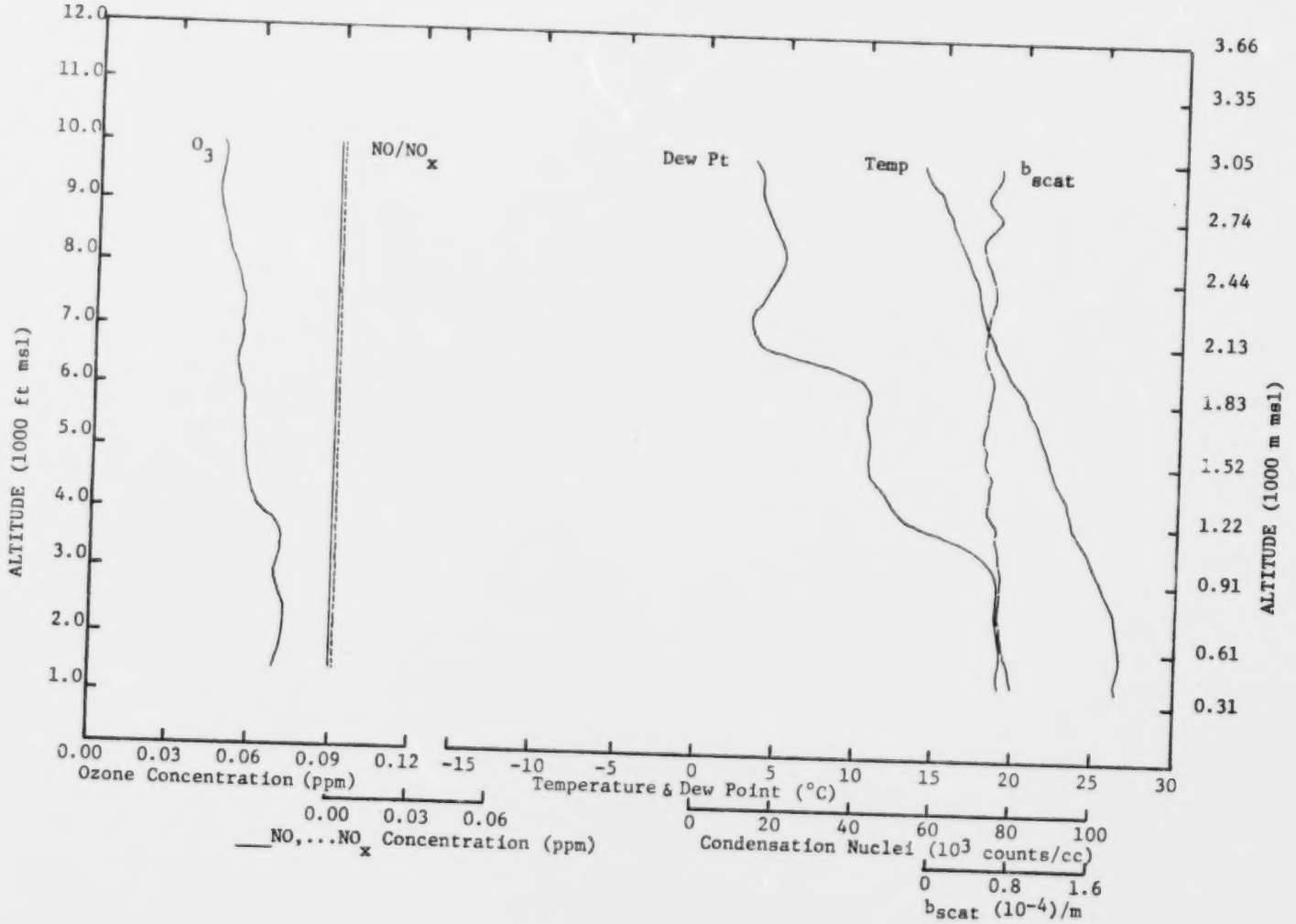

Figure 4.95. Tulsa Flight T20, September 17, 1977. Vertical Spiral, Nowata.

SECTION 4.15

AIRBORNE POLLUTANT AND METEOROLOGICAL DATA AT 15 SECOND INTERVALS

Preceding page blank

Preceding page blank

TULSA FLIGHT NUMBER 5 DATE: 8-25-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	A	13	30	0.069	0.0	0.0	0.5	******	17.7	23.9	2990.
1	A	13	45	0.070	0.001	0.001	0.4	******	17.6	24.0	2990.
1	A	14	0	0.070	0.0	0.0	0.5	******	17.1	24.5	2960.
1	A	14	15	0.065	0.001	0.001	0.6	******	16.4	24.1	2960.
1	A	14	30	0.071	0.0	0.0	0.6	******	16.9	23.9	2950.
1	A	14	45	0.073	0.0	0.003	0.5	******	17.9	24.3	2960.
1	A	15	0	0.073	0.0	0.0	0.5	******	18.8	23.9	2990.
1	A	15	15	0.072	0.0	0.0	0.4	******	18.6	24.4	2940.
1	A	15	30	0.072	0.0	0.0	0.5	******	18.8	23.9	2950.
1	A	15	45	0.070	0.0	0.0	0.7	******	20.7	23.7	2920.
1	A	16	0	0.070	0.0	0.0	0.5	******	22.0	24.5	2930.
1	A	16	15	0.073	0.0	0.0	0.5	******	22.7	23.9	2960.
1	A	16	30	0.071	0.0	0.001	0.5	******	20.8	24.4	2880.
1	A	16	45	0.071	0.0	0.0	0.6	******	20.3	23.9	2910.
1	A	17	0	0.070	0.001	0.001	0.5	******	20.5	23.9	2950.
1	A	17	15	0.068	0.0	0.002	0.6	******	19.9	24.3	2870.
1	A	17	30	0.069	0.0	0.0	0.6	******	17.6	23.9	2870.
1	A	17	45	0.070	0.0	0.002	0.5	******	14.5	24.1	2850.
1	A	18	0	0.069	0.0	0.0	0.6	******	14.4	24.1	2800.
1	A	18	15	0.070	0.002	0.004	0.5	******	16.3	24.1	2760.
1	A	18	30	0.075	0.0	0.0	0.6	******	17.1	23.9	2860.
1	A	18	45	0.069	0.0	0.0	0.5	******	18.1	24.3	2910.
1	A	19	0	0.069	0.0	0.001	0.7	******	16.8	24.1	2890.
1	A	19	15	0.075	0.0	0.0	0.5	******	16.5	24.3	2820.
1	A	19	30	0.071	0.0	0.0	0.6	******	17.9	24.5	2820.
1	A	19	45	0.070	0.0	0.001	0.7	******	20.7	24.5	2860.
1	A	20	0	0.071	0.0	0.0	0.7	******	22.5	23.6	2920.
1	A	20	15	0.073	0.0	0.0	0.5	******	22.9	24.1	2900.
1	A	20	30	0.074	0.0	0.0	0.5	******	20.9	24.0	2840.
1	A	20	45	0.073	0.0	0.0	0.5	******	19.7	23.9	2850.
1	A	21	0	0.070	0.0	0.002	0.5	******	18.7	24.5	2590.
1	A	21	15	0.070	0.0	0.0	0.6	******	18.6	23.9	2870.
1	A	21	30	0.071	0.0	0.0	0.5	******	19.0	23.9	2860.
1	A	21	45	0.069	0.001	0.001	0.5	******	20.0	24.0	2850.
1	A	22	0	0.071	0.0	0.0	0.6	******	21.0	23.8	2910.
1	A	22	15	0.068	0.0	0.0	0.6	******	20.6	23.9	2830.
1	A	22	30	0.063	0.0	0.0	0.8	******	19.6	23.5	2870.
1	A	22	45	0.064	0.002	0.002	0.7	******	19.4	24.0	2900.
1	A	23	0	0.070	0.002	0.002	0.6	******	20.8	23.5	2940.
1	A	23	15	0.069	0.001	0.001	0.6	******	22.4	23.5	2950.
1	A	23	30	0.070	0.002	0.005	0.6	******	22.1	23.2	2950.
1	A	23	45	0.067	0.001	0.002	0.6	******	21.6	23.3	2930.
1	A	24	0	0.067	0.0	0.003	0.6	******	22.2	23.8	3030.
1	A	24	15	0.068	0.0	0.001	0.5	******	20.7	23.6	3000.
1	A	24	30	0.067	0.0	0.0	0.6	******	18.9	23.6	2980.
1	A	24	45	0.066	0.0	0.0	0.6	******	19.7	23.6	3040.
1	A	25	0	0.068	0.0	0.0	0.6	******	19.9	23.6	3060.
1	A	25	15	0.061	0.0	0.0	0.4	******	19.1	23.6	3090.
1	A	25	30	0.062	0.0	0.002	0.6	******	19.0	23.9	3040.
1	A	25	45	0.062	0.0	0.0	0.7	******	20.7	23.6	3010.

TULSA FLIGHT NUMBER 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	A	26	0	0.064	0.0	0.002	0.6	******	22.2	22.5	2960.
1	A	26	15	0.061	0.0	0.002	0.7	******	22.7	23.6	2980.
1	A	26	30	0.068	0.002	0.002	0.8	******	22.8	23.5	2960.
1	A	26	45	0.065	0.0	0.0	0.8	******	22.9	23.5	2920.
1	A	27	0	0.062	0.0	0.002	0.7	******	23.3	23.3	2930.
1	A	27	15	0.064	0.0	0.005	0.6	******	23.5	23.5	2970.
1	A	27	30	0.062	0.0	0.004	0.6	******	22.3	23.1	2930.
1	A	27	45	0.062	0.0	0.0	0.6	******	21.5	23.2	2910.
1	A	28	0	0.064	0.0	0.0	0.7	******	21.8	22.5	2920.
1	A	28	15	0.063	0.0	0.004	0.7	******	22.4	23.0	2930.
1	A	28	30	0.063	0.0	0.004	0.6	******	23.1	23.1	2920.
2	A	28	45	0.060	0.005	0.005	0.6	******	23.0	23.0	2880.
2	A	29	0	0.066	0.001	0.002	0.8	******	22.8	23.0	2780.
2	A	29	15	0.067	0.0	0.001	0.7	******	22.1	23.0	2790.
2	A	29	30	0.066	0.0	0.003	0.6	******	21.3	23.0	2840.
2	A	29	45	0.062	0.0	0.0	0.7	******	21.3	23.5	2810.
2	A	30	0	0.067	0.0	0.001	0.8	******	20.8	23.5	2860.
2	A	30	15	0.068	0.0	0.0	0.8	******	20.1	23.1	2840.
2	A	30	30	0.068	0.0	0.003	0.8	******	20.3	23.5	2830.
3	A	30	45	0.067	0.003	0.003	0.8	******	19.9	23.1	2780.
3	A	31	0	0.071	0.0	0.0	0.8	******	20.7	22.7	2750.
3	A	31	15	0.069	0.0	0.0	0.9	******	21.3	21.7	2850.
3	A	31	30	0.069	0.0	0.0	0.8	******	21.3	22.5	2790.
3	A	31	45	0.068	0.0	0.0	0.9	******	21.6	22.6	2850.
3	A	32	0	0.069	0.0	0.002	0.9	******	20.4	22.3	2840.
3	A	32	15	0.068	0.0	0.003	1.0	******	19.6	22.4	2830.
3	A	32	30	0.071	0.0	0.0	0.8	******	21.4	22.7	2910.
3	A	32	45	0.067	0.0	0.006	0.8	******	22.1	22.1	2900.
3	A	33	0	0.065	0.0	0.0	0.7	******	22.1	22.1	2890.
3	A	33	15	0.060	0.0	0.004	0.6	******	20.2	22.6	2970.
3	A	33	30	0.062	0.002	0.002	0.6	******	18.0	22.6	3050.
3	A	33	45	0.059	0.0	0.002	0.5	******	17.0	22.5	3140.
3	A	34	0	0.064	0.001	0.002	0.7	******	16.7	22.5	3350.
3	A	34	15	0.074	0.002	0.004	0.6	******	15.8	22.1	3460.
3	A	34	30	0.076	0.0	0.0	0.6	******	16.7	22.6	3580.
3	A	34	45	0.074	0.0	0.0	0.5	******	18.4	22.1	3690.
3	A	35	0	0.074	0.0	0.0	0.7	******	19.6	22.3	3870.
3	A	35	15	0.069	0.0	0.0	0.7	******	19.6	22.5	3890.
3	A	35	30	0.074	0.0	0.0	0.5	******	20.9	21.6	3860.
3	A	35	45	0.074	0.0	0.0	0.6	******	22.0	22.1	3870.
3	A	36	0	0.075	0.0	0.0	0.7	******	21.9	21.9	3900.
3	A	36	15	0.074	0.0	0.0	0.6	******	22.1	22.1	3900.
3	A	36	30	0.072	0.0	0.0	0.6	******	22.0	22.2	3920.
3	A	36	45	0.074	0.0	0.0	0.7	******	17.9	22.1	3990.
3	A	37	0	0.072	0.0	0.0	0.7	******	15.1	22.4	3940.
3	A	37	15	0.072	0.0	0.0	0.8	******	16.1	22.1	3950.
3	A	37	30	0.072	0.001	0.001	0.5	******	17.9	22.6	4010.
3	A	37	45	0.066	0.0	0.0	0.5	******	19.7	22.6	4050.
3	A	38	0	0.067	0.002	0.003	0.6	******	20.2	22.3	4070.
3	A	38	15	0.066	0.001	0.001	0.6	******	20.5	22.1	4070.

TULSA FLIGHT NUMBER 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	8	38	30	0.065	0.0	0.0	0.7	******	17.6	22.1	4140.
3	8	38	45	0.070	0.0	0.0	0.6	******	15.1	22.1	4130.
3	8	39	0	0.071	0.0	0.0	0.5	******	13.6	22.5	4170.
3	8	39	15	0.069	0.0	0.0	0.6	******	13.3	22.2	4240.
3	8	39	30	0.069	0.0	0.0	0.7	******	12.4	22.6	4190.
3	8	39	45	0.071	0.0	0.0	0.5	******	12.9	22.6	4140.
3	8	40	0	0.070	0.0	0.0	0.5	******	13.4	22.5	4230.
3	8	40	15	0.075	0.0	0.0	0.6	******	14.7	21.9	4080.
3	8	40	30	0.072	0.0	0.0	0.8	******	15.5	23.5	4170.
3	8	40	45	0.076	0.0	0.0	0.8	******	17.1	22.5	4270.
3	8	41	0	0.073	0.0	0.0	0.6	******	17.2	22.6	4210.
3	8	41	15	0.071	0.0	0.001	0.6	******	17.5	22.7	4280.
3	8	41	30	0.073	0.0	0.0	0.5	******	18.3	22.1	4260.
3	8	41	45	0.073	0.0	0.0	0.7	******	19.9	22.1	4260.
3	8	42	0	0.073	0.0	0.0	0.7	******	18.3	21.8	4190.
3	8	42	15	0.073	0.0	0.0	0.5	******	14.9	22.2	4230.
3	8	42	30	0.072	0.0	0.0	0.7	******	10.3	22.1	4240.
3	8	42	45	0.070	0.0	0.0	0.5	******	11.8	22.6	4290.
3	8	43	0	0.070	0.0	0.0	0.8	******	15.1	21.9	4290.
3	8	43	15	0.075	0.0	0.0	0.5	******	17.0	22.1	4230.
3	8	43	30	0.071	0.0	0.0	0.7	******	18.0	22.6	4310.
3	8	43	45	0.072	0.0	0.0	0.8	******	18.7	22.1	4290.
3	8	44	0	0.073	0.0	0.0	0.6	******	16.5	21.7	4300.
3	8	44	15	0.072	0.0	0.0	0.8	******	14.6	22.1	4280.
3	8	44	30	0.074	0.0	0.004	0.6	******	16.0	22.1	4190.
3	8	44	45	0.073	0.0	0.0	0.8	******	18.0	22.0	4180.
3	8	45	0	0.074	0.0	0.0	0.8	******	18.6	21.6	4140.
3	8	45	15	0.072	0.0	0.0	0.7	******	17.1	21.7	4130.
3	8	45	30	0.075	0.0	0.0	0.8	******	14.5	21.6	4190.
3	8	45	45	0.072	0.0	0.0	0.7	******	15.5	21.6	4170.
3	8	46	0	0.072	0.0	0.0	0.6	******	16.3	21.7	4160.
3	8	46	15	0.076	0.0	0.0	0.7	******	15.7	22.6	4240.
3	8	46	30	0.073	0.0	0.0	0.7	******	13.8	22.2	4180.
3	8	46	45	0.073	0.0	0.0	0.8	******	13.2	21.7	4190.
3	8	47	0	0.070	0.0	0.005	0.6	******	14.3	22.6	4210.
3	8	47	15	0.067	0.0	0.0	0.8	******	14.6	21.7	4220.
3	8	47	30	0.074	0.001	0.006	0.8	******	12.5	22.1	4180.
4	8	47	45	0.071	0.0	0.003	0.7	******	12.3	21.9	4160.
4	8	48	0	0.070	0.0	0.002	0.7	******	14.1	21.9	4090.
4	8	48	15	0.072	0.0	0.0	0.8	******	16.0	22.3	4250.
4	8	48	30	0.072	0.0	0.0	0.8	******	16.1	22.1	4230.
4	8	48	45	0.071	0.0	0.0	0.7	******	16.5	22.1	4220.
4	8	49	0	0.068	0.0	0.0	0.7	******	17.5	21.6	4220.
4	8	49	15	0.071	0.0	0.0	0.8	******	19.3	22.2	4230.
4	8	49	30	0.075	0.0	0.0	0.6	******	19.7	22.2	4290.
4	8	49	45	0.071	0.0	0.0	0.8	******	18.3	22.6	4200.
4	8	50	0	0.066	0.0	0.0	0.8	******	16.6	22.1	4250.
5	8	50	15	0.067	0.0	0.0	0.7	******	16.9	22.3	4300.
5	8	50	30	0.068	0.0	0.0	0.6	******	18.9	21.5	4270.
5	8	50	45	0.069	0.0	0.0	0.7	******	20.1	22.1	4270.

TULSA FLIGHT NUMBER 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	8	51	0	0.075	0.0	0.0	0.7	******	19.8	22.1	4220.
5	8	51	15	0.072	0.011	0.015	0.7	******	18.8	22.5	4330.
5	8	51	30	0.073	0.0	0.0	0.6	******	17.5	21.9	4340.
5	8	51	45	0.073	0.0	0.0	0.7	******	15.3	22.1	4340.
5	8	52	0	0.073	0.0	0.003	0.7	******	12.3	22.5	4310.
5	8	52	15	0.073	0.0	0.0	0.6	******	10.5	22.1	4230.
5	8	52	30	0.074	0.0	0.0	0.6	******	13.1	22.6	4260.
5	8	52	45	0.074	0.0	0.0	0.5	******	16.4	22.8	4270.
5	8	53	0	0.076	0.002	0.002	0.5	******	19.8	22.1	4300.
5	8	53	15	0.077	0.0	0.0	0.7	******	21.7	22.1	4210.
5	8	53	30	0.071	0.0	0.0	0.6	******	21.2	22.6	4290.
5	8	53	45	0.072	0.001	0.001	0.5	******	22.0	22.2	4300.
5	8	54	0	0.070	0.003	0.003	0.8	******	21.3	22.6	4220.
5	8	54	15	0.071	0.0	0.0	0.6	******	21.3	22.6	4250.
5	8	54	30	0.071	0.0	0.0	0.5	******	21.5	22.7	4260.
5	8	54	45	0.072	0.001	0.004	0.7	******	19.8	22.3	4220.
5	8	55	0	0.071	0.0	0.0	0.5	******	17.2	22.1	4150.
5	8	55	15	0.075	0.0	0.0	0.6	******	17.9	22.7	4240.
5	8	55	30	0.071	0.0	0.002	0.7	******	21.0	22.6	4240.
5	8	55	45	0.065	0.002	0.002	0.6	******	21.7	22.3	4230.
5	8	56	0	0.078	0.0	0.0	0.7	******	21.6	22.2	4210.
5	8	56	15	0.071	0.0	0.0	0.8	******	17.8	22.1	4160.
5	8	56	30	0.069	0.0	0.0	0.7	******	15.2	22.1	4150.
5	8	56	45	0.071	0.0	0.0	0.7	******	15.1	22.6	4160.
5	8	57	0	0.073	0.0	0.0	0.5	******	15.0	22.6	4150.
5	8	57	15	0.071	0.0	0.0	0.6	******	16.1	21.5	4200.
5	8	57	30	0.073	0.0	0.003	0.5	******	16.9	22.3	4180.
5	8	57	45	0.071	0.0	0.004	0.6	******	17.7	21.6	4190.
5	8	58	0	0.072	0.0	0.0	0.5	******	16.8	22.0	4160.
5	8	58	15	0.071	0.0	0.0	0.5	******	16.2	22.6	4170.
5	8	58	30	0.071	0.0	0.0	0.6	******	15.8	22.0	4140.
5	8	58	45	0.072	0.0	0.0	0.5	******	16.2	22.1	4160.
5	8	59	0	0.072	0.0	0.0	0.5	******	17.7	22.1	4080.
5	8	59	15	0.075	0.0	0.0	0.5	******	18.7	22.1	4270.
5	8	59	30	0.070	0.0	0.0	0.4	******	18.4	21.7	4300.
5	8	59	45	0.072	0.0	0.0	0.6	******	17.3	22.1	4300.
5	9	0	0	0.067	0.0	0.0	0.5	******	18.2	22.0	4300.
5	9	0	15	0.069	0.0	0.0	0.5	******	20.0	22.2	4300.
5	9	0	30	0.070	0.0	0.0	0.5	******	19.3	21.7	4320.
5	9	0	45	0.075	0.0	0.0	0.6	******	19.2	21.8	4140.
5	9	1	0	0.074	0.0	0.0	0.6	******	19.3	22.0	4380.
5	9	1	15	0.072	0.0	0.0	0.5	******	17.2	22.1	4380.
5	9	1	30	0.071	0.0	0.0	0.6	******	14.6	22.1	4370.
5	9	1	45	0.073	0.0	0.0	0.4	******	14.8	22.2	4420.
5	9	2	0	0.072	0.0	0.002	0.5	******	16.8	21.2	4360.
5	9	2	15	0.074	0.0	0.003	0.6	******	18.5	22.1	4370.
5	9	2	30	0.077	0.0	0.0	0.5	******	17.9	21.6	4380.
5	9	2	45	0.075	0.0	0.002	0.6	******	17.2	22.6	4320.
5	9	3	0	0.072	0.0	0.0	0.7	******	15.4	22.1	4370.
5	9	3	15	0.072	0.0	0.0	0.5	******	******	22.2	4370.

TULSA FLIGHT NUMBER 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	9	3	30	0.074	0.0	0.0	0.5	******	******	22.1	4370.
5	9	3	45	0.075	0.0	0.0	0.5	******	14.8	21.9	4350.
6	9	4	0	0.077	0.0	0.0	0.5	******	13.8	21.7	4370.
6	9	4	15	0.074	0.0	0.0	0.5	******	13.5	21.8	4300.
6	9	4	30	0.078	0.0	0.0	0.5	******	13.1	22.1	4370.
6	9	4	45	0.079	0.0	0.0	0.5	******	14.0	22.1	4390.
6	9	5	0	0.074	0.0	0.0	0.5	******	14.7	21.7	4320.
6	9	5	15	0.078	0.0	0.0	0.6	******	15.5	21.9	4320.
6	9	5	30	0.076	0.0	0.0	0.6	******	15.0	21.7	4300.
6	9	5	45	0.076	0.0	0.0	0.5	******	15.3	22.6	4360.
6	9	6	0	0.075	0.0	0.0	0.5	******	16.1	22.0	4350.
7	9	6	15	0.075	0.0	0.0	0.6	******	17.0	21.1	4250.
7	9	6	30	0.078	0.0	0.001	0.7	******	16.4	21.6	4200.
7	9	6	45	0.077	0.001	0.004	0.6	******	15.7	22.1	4170.
7	9	7	0	0.074	0.0	0.0	0.5	******	15.1	21.7	4190.
7	9	7	15	0.076	0.0	0.0	0.6	******	14.2	22.1	4210.
7	9	7	30	0.073	0.0	0.0	0.7	******	14.5	21.7	4170.
7	9	7	45	0.073	0.0	0.0	0.5	******	16.0	22.7	4260.
7	9	8	0	0.073	0.0	0.0	0.7	******	17.9	22.1	4270.
7	9	8	15	0.075	0.0	0.0	0.6	******	17.8	21.6	4220.
7	9	8	30	0.075	0.0	0.0	0.6	******	17.5	22.6	4240.
7	9	8	45	0.075	0.0	0.0	0.5	******	17.1	22.1	4220.
7	9	9	0	0.074	0.0	0.0	0.6	******	17.1	22.5	4310.
7	9	9	15	0.070	0.0	0.001	0.5	******	16.7	22.5	4310.
7	9	9	30	0.075	0.0	0.0	0.5	******	15.9	22.1	4290.
7	9	9	45	0.073	0.0	0.0	0.5	******	14.4	22.1	4270.
7	9	10	0	0.072	0.0	0.0	0.6	******	13.5	22.4	4310.
7	9	10	15	0.072	0.0	0.0	0.5	******	12.2	22.1	4240.
7	9	10	30	0.073	0.0	0.0	0.5	******	11.6	22.1	4220.
7	9	10	45	0.070	0.0	0.0	0.5	******	10.3	22.6	4290.
7	9	11	0	0.072	0.0	0.0	0.5	******	******	22.1	4230.
7	9	11	15	0.073	0.0	0.002	0.5	******	******	22.6	4270.
7	9	11	30	0.077	0.0	0.004	0.5	******	17.5	22.7	4220.
7	9	11	45	0.072	0.0	0.006	0.7	******	16.7	22.6	4240.
7	9	12	0	0.075	0.0	0.0	0.5	******	15.7	22.1	4080.
7	9	12	15	0.077	0.0	0.0	0.4	******	14.2	22.5	4310.
7	9	12	30	0.074	0.0	0.0	0.6	******	12.8	22.6	4270.
7	9	12	45	0.075	0.0	0.0	0.6	******	12.4	22.5	4290.
7	9	13	0	0.072	0.0	0.002	0.5	******	12.8	22.9	4300.
7	9	13	15	0.076	0.0	0.0	0.5	******	13.7	22.5	4220.
7	9	13	30	0.073	0.0	0.003	0.7	******	14.2	22.7	4240.
7	9	13	45	0.075	0.0	0.0	0.7	******	16.0	22.7	4090.
7	9	14	0	0.073	0.0	0.0	0.6	******	17.2	22.6	4250.
7	9	14	15	0.075	0.0	0.001	0.6	******	19.2	23.0	4360.
7	9	14	30	0.073	0.0	0.0	0.6	******	17.7	22.6	4300.
7	9	14	45	0.073	0.0	0.001	0.8	******	16.7	22.6	4130.
7	9	15	0	0.072	0.0	0.0	0.7	******	14.9	22.6	4160.
7	9	15	15	0.072	0.0	0.0	0.6	******	15.3	22.5	4290.
7	9	15	30	0.071	0.0	0.0	0.6	******	16.3	22.7	4240.
7	9	15	45	0.069	0.0	0.002	0.6	******	16.7	22.5	4230.

TULSA FLIGHT NUMBER 5

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	9	16	0	0.070	0.0	0.001	0.6	******	15.6	22.6	4240.
7	9	16	15	0.072	0.0	0.0	0.5	******	17.8	22.6	4230.
7	9	16	30	0.071	0.0	0.002	0.6	******	18.0	22.6	4230.
7	9	16	45	0.073	0.0	0.0	0.6	******	14.4	22.5	4240.
7	9	17	0	0.069	0.0	0.0	0.7	******	12.0	22.6	4210.
7	9	17	15	0.071	0.0	0.0	0.6	******	15.4	22.3	4240.
7	9	17	30	0.076	0.0	0.0	0.5	******	19.8	22.7	4230.
7	9	17	45	0.075	0.0	0.0	0.5	******	19.6	22.7	4270.
7	9	18	0	0.072	0.0	0.001	0.5	******	17.3	22.2	4240.
7	9	18	15	0.072	0.0	0.0	0.6	******	14.7	22.1	4240.
7	9	18	30	0.077	0.0	0.0	0.6	******	13.0	22.6	4340.
7	9	18	45	0.075	0.0	0.0	0.7	******	12.9	22.5	4290.
7	9	19	0	0.076	0.0	0.0	0.8	******	13.7	22.6	4260.
7	9	19	15	0.077	0.0	0.0	0.8	******	16.0	22.5	4320.
7	9	19	30	0.076	0.0	0.0	0.7	******	16.3	23.0	4310.
7	9	19	45	0.076	0.0	0.002	0.8	******	16.4	22.6	4230.
7	9	20	0	0.077	0.002	0.002	0.8	******	16.0	22.7	4240.
7	9	20	15	0.073	0.002	0.004	0.7	******	16.7	22.5	4300.
7	9	20	30	0.074	0.0	0.0	0.6	******	18.4	22.6	4240.
7	9	20	45	0.074	0.0	0.0	0.7	******	20.2	21.7	4230.
7	9	21	0	0.072	0.0	0.0	0.8	******	21.1	22.2	4290.
7	9	21	15	0.068	0.0	0.0	0.8	******	21.7	22.5	4310.
7	9	21	30	0.073	0.0	0.0	0.8	******	21.7	22.7	4240.
7	9	21	45	0.071	0.0	0.0	0.8	******	20.7	22.5	4240.
8	9	22	0	0.067	0.0	0.0	0.7	******	20.3	22.1	4210.

TULSA FLIGHT NUMBER 4 DATE: 8-25-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NO2 PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	13	23	45	0.081	0.0	0.0	1.7	******	22.5	27.3	2300.
1	13	24	0	0.078	0.0	0.001	1.5	******	22.4	26.4	2280.
1	13	24	15	0.077	0.0	0.005	1.6	******	22.7	26.5	2350.
1	13	24	30	0.080	0.0	0.0	1.7	******	23.1	25.8	2290.
1	13	24	45	0.079	0.0	0.002	1.7	******	22.4	26.3	2280.
1	13	25	0	0.081	0.0	0.0	1.6	******	20.5	26.2	2320.
1	13	25	15	0.081	0.0	0.0	1.8	******	19.6	26.4	2270.
1	13	25	30	0.081	0.004	0.004	1.5	******	20.9	26.4	2280.
1	13	25	45	0.082	0.0	0.0	1.6	******	23.0	26.4	2310.
1	13	26	0	0.080	0.0	0.0	1.7	******	23.2	26.3	2320.
1	13	26	15	0.087	0.007	0.007	1.7	******	23.3	25.8	2220.
1	13	26	30	0.083	0.0	0.0	1.7	******	24.2	26.2	2280.
1	13	26	45	0.087	0.0	0.0	1.8	******	24.8	26.4	2320.
1	13	27	0	0.088	0.0	0.002	1.6	******	24.2	26.3	2310.
1	13	27	15	0.091	0.0	0.0	1.8	******	23.4	25.8	2360.
1	13	27	30	0.089	0.0	0.0	1.9	******	22.8	26.3	2260.
1	13	27	45	0.092	0.0	0.0	2.0	******	23.6	24.9	2260.
1	13	28	0	0.092	0.0	0.0	1.8	******	24.0	26.1	2260.
1	13	28	15	0.095	0.0	0.002	1.8	******	23.3	26.0	2210.
1	13	28	30	0.097	0.0	0.0	1.9	******	21.8	25.4	2270.
1	13	28	45	0.085	0.0	0.0	1.7	******	18.7	25.8	2260.
1	13	29	0	0.089	0.0	0.004	1.9	******	16.0	25.8	2250.
1	13	29	15	0.084	0.0	0.0	1.7	******	16.7	26.4	2340.
1	13	29	30	0.085	0.0	0.0	1.9	******	19.6	26.2	2280.
1	13	29	45	0.088	0.0	0.007	2.0	******	21.5	25.8	2270.
1	13	30	0	0.088	0.0	0.0	1.8	******	23.3	25.8	2290.
1	13	30	15	0.087	0.0	0.0	1.9	******	23.3	26.0	2280.
1	13	30	30	0.083	0.0	0.0	1.7	******	22.4	26.0	2270.
1	13	30	45	0.088	0.0	0.002	1.8	******	19.4	26.0	2270.
1	13	31	0	0.086	0.0	0.001	1.7	******	18.7	25.8	2270.
1	13	31	15	0.084	0.0	0.003	1.7	******	17.7	26.3	2270.
1	13	31	30	0.084	0.0	0.008	1.7	******	15.9	25.8	2280.
1	13	31	45	0.081	0.0	0.0	1.7	******	16.6	26.0	2350.
1	13	32	0	0.081	0.0	0.0	1.7	******	22.4	26.3	2330.
1	13	32	15	0.079	0.0	0.0	1.6	******	25.5	26.4	2300.
1	13	32	30	0.077	0.0	0.0	1.4	******	25.2	26.0	2300.
1	13	32	45	0.077	0.0	0.0	1.7	******	24.6	26.4	2290.
1	13	33	0	0.074	0.0	0.0	1.8	******	23.9	26.2	2280.
1	13	33	15	0.077	0.0	0.007	1.8	******	22.9	26.4	2280.
1	13	33	30	0.080	0.0	0.0	1.5	******	23.3	26.4	2470.
1	13	33	45	0.079	0.0	0.0	1.5	******	23.3	26.3	2690.
1	13	34	0	0.081	0.0	0.0	1.5	******	20.6	26.5	2820.
1	13	34	15	0.078	0.0	0.004	1.4	******	18.2	26.4	2950.
1	13	34	30	0.078	0.0	0.0	1.3	******	15.8	26.2	2990.
1	13	34	45	0.079	0.0	0.0	1.5	******	17.7	26.4	3090.
1	13	35	0	0.082	0.0	0.0	1.4	******	21.7	25.8	3060.
1	13	35	15	0.080	0.0	0.0	1.6	******	24.6	26.0	3000.
1	13	35	30	0.082	0.0	0.0	1.5	******	24.7	25.2	2960.
1	13	35	45	0.086	0.0	0.0	1.5	******	23.3	25.4	3020.
1	13	36	0	0.085	0.0	0.005	1.5	******	22.2	25.4	2950.

TULSA FLIGHT NUMBER 4

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	13	36	15	0.084	0.0	0.007	1.5	******	23.6	25.2	2950.
1	13	36	30	0.087	0.0	0.003	1.5	******	24.3	24.4	2720.
1	13	36	45	0.083	0.0	0.010	1.5	******	24.3	25.5	2470.
1	13	37	0	0.088	0.0	0.002	1.4	******	23.3	25.9	2370.
1	13	37	15	0.087	0.001	0.001	1.3	******	22.3	25.8	2340.
1	13	37	30	0.086	0.0	0.0	1.3	******	21.9	26.4	2260.
1	13	37	45	0.089	0.0	0.0	1.4	******	22.6	26.2	2360.
1	13	38	0	0.092	0.0	0.0	1.3	******	22.0	26.4	2320.
1	13	38	15	0.098	0.0	0.0	1.3	******	22.8	26.8	2360.
1	13	38	30	0.098	0.0	0.0	1.3	******	24.1	26.9	2340.
1	13	38	45	0.096	0.0	0.0	1.0	******	25.2	26.5	2290.
1	13	39	0	0.098	0.0	0.0	1.2	******	25.5	26.9	2310.
1	13	39	15	0.088	0.0	0.0	1.0	******	25.1	27.0	2340.
1	13	39	30	0.086	0.0	0.0	1.1	******	23.0	27.3	2330.
1	13	39	45	0.086	0.0	0.0	1.1	******	22.8	26.8	2330.
1	13	40	0	0.085	0.0	0.0	0.9	******	21.9	27.8	2300.
1	13	40	15	0.089	0.0	0.0	1.0	******	21.4	27.2	2330.
1	13	40	30	0.090	0.0	0.0	1.1	******	19.7	27.6	2320.
1	13	40	45	0.071	0.0	0.0	0.9	******	21.4	27.9	2310.
1	13	41	0	0.085	0.0	0.0	1.0	******	23.3	28.3	2350.
1	13	41	15	0.083	0.0	0.0	0.9	******	24.1	37.8	2350.
1	13	41	30	0.084	0.0	0.002	0.8	******	22.7	37.8	2350.
1	13	41	45	0.077	0.0	0.004	0.9	******	22.2	27.8	2280.
1	13	42	0	0.081	0.0	0.0	0.8	******	20.8	27.7	2230.
1	13	42	15	0.078	0.0	0.002	0.8	******	19.0	28.1	2290.
1	13	42	30	0.077	0.0	0.0	0.8	******	17.7	27.7	2290.
1	13	42	45	0.078	0.0	0.0	0.8	******	18.3	28.1	2160.
1	13	43	0	0.077	0.0	0.001	0.8	******	19.2	28.3	2240.
1	13	43	15	0.075	0.0	0.003	0.8	******	19.3	28.5	2280.
1	13	43	30	0.076	0.0	0.0	0.7	******	19.3	28.3	2310.
1	13	43	45	0.075	0.0	0.002	0.9	******	20.0	28.5	2300.
1	13	44	0	0.074	0.0	0.006	0.6	******	20.0	28.3	2290.
1	13	44	15	0.077	0.0	0.0	0.5	******	19.5	28.2	2350.
1	13	44	30	0.076	0.0	0.0	0.8	******	18.9	28.7	2320.
1	13	44	45	0.076	0.0	0.0	0.7	******	18.9	28.7	2360.
1	13	45	0	0.072	0.0	0.0	0.7	******	19.1	28.7	2300.
1	13	45	15	0.073	0.0	0.0	0.7	******	19.9	28.4	2240.
1	13	45	30	0.076	0.0	0.0	0.8	******	20.0	28.5	2260.
1	13	45	45	0.071	0.0	0.0	0.7	******	19.6	28.8	2290.
1	13	46	0	0.072	0.0	0.0	0.6	******	20.0	29.2	2350.
1	13	46	15	0.071	0.0	0.0	0.7	******	21.6	28.7	2290.
1	13	46	30	0.075	0.0	0.0	0.6	******	22.5	28.5	2360.
1	13	46	45	0.074	0.0	0.0	0.8	******	22.6	28.8	2350.
1	13	47	0	0.072	0.0	0.0	0.7	******	22.7	28.7	2300.
2	13	47	15	0.072	0.0	0.0	0.7	******	22.1	28.7	2210.
2	13	47	30	0.075	0.0	0.0	0.6	******	22.4	28.9	2360.
2	13	47	45	0.075	0.0	0.0	0.5	******	23.6	29.3	2270.
2	13	48	0	0.074	0.0	0.0	0.6	******	25.4	28.8	2310.
2	13	48	15	0.074	0.0	0.0	0.7	******	25.3	28.9	2350.
2	13	48	30	0.074	0.0	0.0	0.7	******	22.8	29.0	2100.

TULSA FLIGHT NUMBER 4

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
2	13	48	45	0.075	0.0	0.0	0.8	******	19.1	28.8	2380.
3	13	49	0	0.076	0.0	0.0	0.7	******	17.1	28.9	2360.
3	13	49	15	0.074	0.0	0.004	0.7	******	18.3	29.3	2360.
3	13	49	30	0.079	0.0	0.004	0.5	******	20.3	29.3	2310.
3	13	49	45	0.077	0.0	0.002	0.6	******	21.8	28.7	2300.
3	13	50	0	0.074	0.0	0.0	0.5	******	19.6	29.3	2320.
3	13	50	15	0.075	0.0	0.004	0.6	******	14.8	28.7	2280.
3	13	50	30	0.073	0.0	0.0	0.7	******	13.1	29.2	2340.
3	13	50	45	0.073	0.0	0.0	0.6	******	14.6	28.8	2310.
3	13	51	0	0.073	0.0	0.0	0.7	******	17.6	29.0	2310.
3	13	51	15	0.076	0.0	0.0	0.7	******	18.6	29.1	2310.
3	13	51	30	0.075	0.0	0.0	0.8	******	20.1	29.0	2370.
3	13	51	45	0.075	0.0	0.0	0.6	******	22.2	28.2	2290.
3	13	52	0	0.075	0.0	0.0	0.9	******	22.9	28.8	2290.
3	13	52	15	0.074	0.0	0.0	0.6	******	21.7	29.1	2300.
3	13	52	30	0.078	0.0	0.007	0.7	******	24.0	28.8	2330.
3	13	52	45	0.076	0.0	0.005	0.7	******	25.6	28.9	2370.
3	13	53	0	0.077	0.0	0.001	0.7	******	25.4	29.2	2240.
3	13	53	15	0.075	0.0	0.003	0.7	******	23.2	28.5	2330.
3	13	53	30	0.075	0.0	0.003	0.7	******	21.2	28.7	2340.
3	13	53	45	0.077	0.0	0.002	0.8	******	21.6	29.3	2300.
3	13	54	0	0.080	0.0	0.0	0.8	******	22.8	28.8	2380.
3	13	54	15	0.082	0.0	0.0	0.9	******	22.1	28.2	2360.
3	13	54	30	0.083	0.0	0.0	0.8	******	19.2	28.7	2300.
3	13	54	45	0.083	0.0	0.0	0.9	******	20.1	28.4	2310.
3	13	55	0	0.084	0.0	0.002	0.9	******	20.5	29.1	2310.
3	13	55	15	0.083	0.0	0.001	0.9	******	20.0	28.7	2340.
3	13	55	30	0.084	0.0	0.003	0.9	******	17.6	28.8	2310.
3	13	55	45	0.081	0.0	0.011	1.0	******	16.9	27.2	2070.
4	14	6	30	0.086	0.0	0.0	1.7	******	20.4	26.8	2360.
4	14	6	45	0.084	0.0	0.001	1.4	******	23.7	27.2	2300.
4	14	7	0	0.079	0.0	0.005	1.3	******	24.1	27.4	2360.
4	14	7	15	0.080	0.0	0.0	1.3	******	20.9	26.8	2340.
4	14	7	30	0.085	0.0	0.0	1.4	******	17.8	27.2	2280.
4	14	7	45	0.081	0.0	0.0	1.3	******	17.7	27.4	2340.
4	14	8	0	0.084	0.0	0.0	1.4	******	20.7	26.8	2360.
4	14	8	15	0.086	0.0	0.0	1.3	******	22.7	26.9	2270.
4	14	8	30	0.087	0.0	0.0	1.5	******	22.3	27.1	2330.
4	14	8	45	0.091	0.0	0.0	1.5	******	21.0	27.3	2290.
4	14	9	0	0.091	0.0	0.0	1.5	******	21.6	27.4	2320.
4	14	9	15	0.093	0.0	0.0	1.4	******	23.7	26.8	2210.
4	14	9	30	0.093	0.0	0.0	1.3	******	24.4	26.9	2290.
4	14	9	45	0.092	0.004	0.004	1.2	******	23.3	27.1	2230.
4	14	10	0	0.095	0.0	0.009	1.2	******	22.2	27.2	2100.
4	14	10	15	0.094	0.0	0.003	1.2	******	22.0	27.3	2090.
4	14	10	30	0.092	0.0	0.003	1.2	******	22.0	27.8	2330.
4	14	10	45	0.092	0.0	0.0	1.3	******	22.4	27.1	2300.
4	14	11	0	0.093	0.0	0.0	1.1	******	20.5	27.5	2300.
4	14	11	15	0.093	0.0	0.0	1.2	******	19.6	27.8	2330.
4	14	11	30	0.091	0.0	0.003	1.3	******	19.3	27.8	2310.

TULSA FLIGHT NUMBER 4

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	b-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
4	14	11	45	0.088	0.0	0.002	1.2	******	20.2	27.8	2310.
4	14	12	0	0.089	0.0	0.0	1.2	******	22.0	28.3	2340.
4	14	12	15	0.095	0.0	0.004	1.1	******	24.3	27.3	2300.
4	14	12	30	0.089	0.0	0.0	1.3	******	25.2	27.7	2290.
4	14	12	45	0.087	0.0	0.0	1.1	******	23.6	27.7	2310.
4	14	13	0	0.088	0.0	0.006	1.2	******	19.3	27.9	2330.
4	14	13	15	0.083	0.0	******	1.1	******	16.5	27.8	2310.
4	14	13	30	0.087	0.0	******	1.2	******	17.0	28.3	2340.
4	14	13	45	0.087	0.0	0.007	1.1	******	17.0	27.9	2270.
4	14	14	0	0.086	0.0	0.008	1.2	******	18.9	27.9	2330.
4	14	14	15	0.086	0.0	0.004	1.2	******	21.1	28.2	2310.
4	14	14	30	0.086	0.0	0.0	1.1	******	22.8	28.1	2310.
4	14	14	45	0.083	0.0	0.0	1.1	******	22.8	27.4	2300.
4	14	15	0	0.083	0.0	0.0	1.1	******	22.3	28.1	2350.
4	14	15	15	0.086	0.0	0.002	1.2	******	22.6	27.8	2290.
4	14	15	30	0.086	0.0	0.008	1.1	******	22.4	27.8	2330.
4	14	15	45	0.083	0.0	0.008	1.0	******	20.2	28.2	2300.
4	14	16	0	0.083	0.0	0.009	1.2	******	19.7	28.2	2290.
4	14	16	15	0.081	0.0	0.010	1.1	******	20.1	28.0	2350.
4	14	16	30	0.082	0.001	0.008	1.2	******	19.4	27.7	2370.
5	14	18	10	0.080	0.0	0.001	1.2	******	16.8	28.5	2290.

TULSA FLIGHT NUMBER 5 DATE: 8-26-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	22	15	0.053	0.0	0.001	0.6	******	******	26.4	1200.
S 1	5	22	30	0.054	0.0	0.0	0.7	******	******	26.4	1300.
S 1	5	22	45	0.053	0.0	0.001	0.7	******	******	26.8	1450.
S 1	5	23	0	0.050	0.0	0.007	0.5	******	******	26.4	1550.
S 1	5	23	15	0.051	0.0	0.002	0.5	******	******	26.0	1650.
S 1	5	23	30	0.048	0.0	0.005	0.5	******	******	26.0	1750.
S 1	5	23	45	0.051	0.0	0.003	0.4	******	******	26.2	1900.
S 1	5	24	0	0.054	0.0	0.0	0.4	******	******	26.0	2000.
S 1	5	24	15	0.056	0.003	0.004	0.5	******	******	26.0	2100.
S 1	5	24	30	0.059	0.001	0.007	0.6	******	******	26.0	2200.
S 1	5	24	45	0.057	0.0	0.002	0.6	******	******	26.0	2250.
S 1	5	25	0	0.056	0.0	0.004	0.6	******	******	26.0	2350.
S 1	5	25	15	0.056	0.0	0.0	0.5	******	******	25.7	2450.
S 1	5	25	30	0.062	0.0	0.0	0.6	******	******	25.4	2550.
S 1	5	25	45	0.059	0.0	0.0	0.4	******	******	25.5	2650.
S 1	5	26	0	0.058	0.0	0.0	0.5	******	******	25.5	2750.
S 1	5	26	15	0.064	0.0	0.003	0.5	******	******	25.4	2800.
S 1	5	26	30	0.065	0.001	0.002	0.5	******	******	25.0	2900.
S 1	5	26	45	0.062	0.0	0.002	0.5	******	******	24.5	3000.
S 1	5	27	0	0.059	0.0	0.0	0.7	******	******	24.5	3100.
S 1	5	27	15	0.056	0.0	0.0	0.6	******	******	24.4	3200.
S 1	5	27	30	0.059	0.0	0.0	0.6	******	******	24.6	3300.
S 1	5	27	45	0.060	0.0	0.0	0.5	******	******	24.5	3400.
S 1	5	28	0	0.060	0.0	0.003	0.7	******	******	24.2	3500.
S 1	5	28	15	0.060	0.0	0.0	0.5	******	******	24.3	3600.
S 1	5	28	30	0.063	0.0	0.0	0.6	******	******	24.5	3700.
S 1	5	28	45	0.062	0.0	0.0	0.5	******	******	23.8	3800.
S 1	5	29	0	0.063	0.0	0.0	0.6	******	******	24.0	3900.
S 1	5	29	15	0.065	0.0	0.0	0.5	******	******	23.5	4000.
S 1	5	29	30	0.064	0.0	0.001	0.4	******	******	22.8	4100.
S 1	5	29	45	0.064	0.0	0.0	0.6	******	******	22.7	4200.
S 1	5	30	0	0.068	0.0	0.004	0.5	******	******	22.8	4300.
S 1	5	30	15	0.071	0.0	0.002	0.5	******	******	22.5	4400.
S 1	5	30	30	0.070	0.0	0.002	0.6	******	******	22.4	4500.
S 1	5	30	45	0.068	0.0	0.006	0.5	******	******	22.1	4600.
S 1	5	31	0	0.069	0.0	0.003	0.5	******	******	21.6	4700.
S 1	5	31	15	0.067	0.0	0.001	0.4	******	******	22.0	4800.
S 1	5	31	30	0.064	0.0	0.0	0.5	******	******	22.1	4900.
S 1	5	31	45	0.070	0.0	0.0	0.6	******	******	21.4	5000.
S 1	5	32	0	0.067	0.0	0.0	0.4	******	******	21.6	5100.
S 1	5	32	15	0.068	0.0	0.0	0.4	******	******	21.1	5200.
S 1	5	32	30	0.068	0.0	0.004	0.3	******	******	20.9	5300.
S 1	5	32	45	0.070	0.0	0.006	0.6	******	******	21.2	5400.
S 1	5	33	0	0.068	0.002	0.002	0.5	******	******	21.2	5500.
S 1	5	33	15	0.066	0.002	0.002	0.4	******	******	21.0	5600.
S 1	5	33	30	0.065	0.0	0.0	0.6	******	******	21.2	5700.
S 1	5	33	45	0.067	0.0	0.005	0.4	******	******	20.7	5800.
S 1	5	34	0	0.066	0.0	0.004	0.4	******	******	20.0	5900.
S 1	5	34	15	0.067	0.0	0.002	0.4	******	******	20.7	6000.
S 1	5	34	30	0.067	0.0	0.0	0.6	******	******	20.7	6100.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	34	45	0.067	0.0	0.0	0.4	******	******	20.1	6200.
S 1	5	35	0	0.068	0.0	0.0	0.5	******	******	20.1	6300.
S 1	5	35	15	0.071	0.0	0.0	0.4	******	******	19.7	6450.
S 1	5	35	30	0.071	0.0	0.0	0.3	******	******	19.6	6550.
S 1	5	35	45	0.061	0.0	0.0	0.4	******	******	19.8	6650.
S 1	5	36	0	0.066	0.0	0.0	0.5	******	******	19.3	6800.
S 1	5	36	15	0.068	0.0	0.0	0.5	******	******	19.2	6900.
S 1	5	36	30	0.067	0.0	0.0	0.4	******	******	19.3	7000.
S 1	5	36	45	0.070	0.0	0.0	0.4	******	******	18.6	7100.
S 1	5	37	0	0.066	0.0	0.0	0.3	******	******	18.8	7200.
S 1	5	37	15	0.067	0.0	0.0	0.3	******	******	19.1	7300.
S 1	5	37	30	0.068	0.0	0.0	0.4	******	******	18.4	7400.
S 1	5	37	45	0.065	0.0	0.001	0.4	******	******	18.8	7500.
S 1	5	38	0	0.068	0.0	0.0	0.4	******	******	18.3	7600.
S 1	5	38	15	0.074	0.0	0.0	0.4	******	******	17.9	7700.
S 1	5	38	30	0.074	0.0	0.002	0.5	******	******	17.8	7800.
S 1	5	38	45	0.073	0.0	0.002	0.4	******	******	17.8	7900.
S 1	5	39	0	0.072	0.0	0.003	0.3	******	******	17.8	8000.
S 1	5	39	15	0.082	0.0	0.0	0.4	******	******	17.8	8100.
S 1	5	39	30	0.085	0.001	0.001	0.4	******	******	17.4	8200.
S 1	5	39	45	0.087	0.0	0.0	0.5	******	******	16.8	8250.
S 1	5	40	0	0.086	0.0	0.0	0.5	******	******	16.9	8350.
S 1	5	40	15	0.083	0.001	0.002	0.4	******	******	16.3	8450.
S 1	5	40	30	0.081	0.003	0.003	0.4	******	******	16.9	8550.
S 1	5	40	45	0.080	0.0	0.004	0.3	******	******	16.5	8650.
S 1	5	41	0	0.079	0.002	0.002	0.5	******	******	16.3	8750.
S 1	5	41	15	0.075	0.0	0.0	0.3	******	******	15.9	8800.
S 1	5	41	30	0.077	0.0	0.0	0.4	******	******	16.0	8900.
S 1	5	41	45	0.080	0.0	0.0	0.5	******	******	15.8	9000.
S 1	5	42	0	0.078	0.0	0.002	0.5	******	******	15.7	9100.
S 1	5	42	15	0.079	0.0	0.0	0.5	******	******	15.0	9200.
S 1	5	42	30	0.075	0.0	0.004	0.4	******	******	15.0	9300.
S 1	5	42	45	0.081	0.0	0.0	0.5	******	******	15.3	9450.
S 1	5	43	0	0.079	0.0	0.0	0.6	******	******	14.5	9550.
S 1	5	43	15	0.076	0.0	0.0	0.4	******	******	14.5	9650.
S 1	5	43	30	0.075	0.0	0.0	0.4	******	******	14.0	9800.
S 1	5	43	45	0.080	0.0	0.0	0.4	******	******	13.6	9900.
S 1	5	44	0	0.079	0.002	0.002	0.4	******	******	14.2	10000.
0	5	56	30	0.060	0.0	0.0	0.5	******	******	25.4	2720.
0	5	56	45	0.057	0.002	0.002	0.5	******	******	25.4	2720.
0	5	57	0	0.055	0.001	0.002	0.5	******	******	25.5	2720.
0	5	57	15	0.058	0.0	0.0	0.6	******	******	25.4	2610.
1	5	57	30	0.058	0.0	0.0	0.6	******	******	25.5	2680.
1	5	57	45	0.055	0.0	0.0	0.7	******	******	25.8	2600.
1	5	58	0	0.057	0.0	0.0	0.7	******	******	26.2	2640.
1	5	58	15	0.056	0.0	0.004	0.7	******	******	25.8	2640.
1	5	58	30	0.055	0.0	0.006	0.6	******	******	25.9	2670.
1	5	58	45	0.056	0.0	0.0	0.6	******	******	26.0	2650.
1	5	59	0	0.058	0.003	0.004	0.7	******	******	26.4	2680.
1	5	59	15	0.056	0.003	0.003	0.4	******	******	26.3	2630.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	5	59	30	0.058	0.0	0.0	0.6	******	******	26.4	2670.
1	5	59	45	0.058	0.0	0.002	0.6	******	******	26.2	2590.
1	6	0	0	0.058	0.0	0.001	0.6	******	******	26.4	2670.
1	6	0	15	0.058	0.0	0.005	0.5	******	******	26.1	2670.
1	6	0	30	0.060	0.0	0.0	0.4	******	******	26.4	2740.
1	6	0	45	0.062	0.0	0.0	0.5	******	******	26.4	2660.
1	6	1	0	0.063	0.0	0.002	0.7	******	******	26.3	2610.
1	6	1	15	0.060	0.0	0.001	0.5	******	******	26.3	2680.
1	6	1	30	0.061	0.0	0.004	0.7	******	******	26.5	2660.
1	6	1	45	0.062	0.0	0.006	0.5	******	******	26.5	2660.
1	6	2	0	0.061	0.0	0.004	0.5	******	******	26.2	2650.
1	6	2	15	0.060	0.0	0.007	0.6	******	******	26.4	2680.
1	6	2	30	0.060	0.002	0.002	0.6	******	******	26.4	2690.
1	6	2	45	0.058	0.0	0.001	0.7	******	******	26.3	2630.
1	6	3	0	0.060	0.0	0.002	0.5	******	******	26.3	2650.
1	6	3	15	0.060	0.0	0.0	0.6	******	******	26.5	2660.
1	6	3	30	0.057	0.0	0.0	0.7	******	******	26.4	2590.
1	6	3	45	0.058	0.0	0.001	0.7	******	******	26.3	2610.
1	6	4	0	0.059	0.0	0.0	0.5	******	******	26.5	2690.
1	6	4	15	0.060	0.0	0.0	0.5	******	******	26.3	2600.
1	6	4	30	0.059	0.0	0.0	0.5	******	******	26.4	2660.
1	6	4	45	0.056	0.0	0.001	0.7	******	******	26.2	2670.
1	6	5	0	0.058	0.0	0.0	0.5	******	******	26.2	2670.
1	6	5	15	0.058	0.0	0.0	0.7	******	******	26.2	2640.
1	6	5	30	0.061	0.0	0.0	0.5	******	******	26.2	2640.
1	6	5	45	0.058	0.0	0.0	0.5	******	******	26.2	2640.
1	6	6	0	0.058	0.0	0.0	0.5	******	******	26.3	2700.
1	6	6	15	0.056	0.0	0.001	0.6	******	******	26.3	2650.
1	6	6	30	0.058	0.0	0.0	0.6	******	******	26.3	2610.
1	6	6	45	0.060	0.0	0.002	0.5	******	******	25.8	2690.
1	6	7	0	0.058	0.0	0.002	0.6	******	******	26.4	2610.
1	6	7	15	0.059	0.0	0.0	0.5	******	******	25.4	2630.
1	6	7	30	0.059	0.0	0.0	0.6	******	******	26.4	2680.
1	6	7	45	0.058	0.0	0.0	0.6	******	******	25.9	2670.
1	6	8	0	0.059	0.0	0.0	0.5	******	******	26.4	2640.
1	6	8	15	0.059	0.0	0.0	0.5	******	******	26.3	2650.
1	6	8	30	0.058	0.0	0.0	0.5	******	******	25.8	2630.
1	6	8	45	0.060	0.0	0.0	0.6	******	******	26.3	2680.
1	6	9	0	0.058	0.0	0.002	0.5	******	******	26.4	2670.
1	6	9	15	0.057	0.0	0.0	0.8	******	******	26.3	2650.
1	6	9	30	0.059	0.0	0.0	0.5	******	******	26.1	2670.
1	6	9	45	0.061	0.0	0.0	0.6	******	******	26.2	2690.
1	6	10	0	0.056	0.0	0.0	0.5	******	******	26.0	2690.
1	6	10	15	0.055	0.0	0.0	0.5	******	******	26.2	2680.
1	6	10	30	0.057	0.0	0.0	0.6	******	******	26.3	2600.
1	6	10	45	0.058	0.0	0.001	0.5	******	******	25.9	2600.
1	6	11	0	0.058	0.0	0.002	0.5	******	******	25.7	2670.
1	6	11	15	0.062	0.0	0.0	0.5	******	******	26.0	2600.
1	6	11	30	0.061	0.0	0.003	0.4	******	******	26.3	2670.
1	6	11	45	0.060	0.0	0.0	0.7	******	******	25.8	2660.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6	12	0	0.061	0.0	0.004	0.5	******	******	25.8	2670.
1	6	12	15	0.064	0.0	0.003	0.5	******	******	26.0	2670.
2	6	12	30	0.061	0.0	0.0	0.5	******	******	25.8	2630.
2	6	12	45	0.062	0.0	0.0	0.5	******	******	26.1	2640.
2	6	13	0	0.059	0.0	0.0	0.6	******	******	25.8	2680.
2	6	13	15	0.060	0.0	0.0	0.6	******	******	25.8	2640.
2	6	13	30	0.061	0.0	0.0	0.5	******	******	26.0	2610.
2	6	13	45	0.061	0.001	0.005	0.6	******	******	25.8	2670.
2	6	14	0	0.059	0.0	0.001	0.7	******	******	26.0	2660.
2	6	14	15	0.061	0.0	0.0	0.6	******	******	26.4	2650.
2	6	14	30	0.056	0.0	0.005	0.6	******	******	25.8	2670.
2	6	14	45	0.061	0.0	0.001	0.7	******	******	26.0	2610.
2	6	15	0	0.059	0.0	0.001	0.6	******	******	26.0	2670.
2	6	15	15	0.061	0.0	0.0	0.7	******	******	26.3	2650.
3	6	15	30	0.060	0.0	0.0	0.6	******	******	26.4	2690.
3	6	16	0	0.060	0.0	0.0	0.6	******	******	26.4	2670.
3	6	16	15	0.061	0.0	0.0	0.7	******	******	25.8	2670.
3	6	16	30	0.062	0.0	0.0	0.6	******	******	26.0	2680.
3	6	16	45	0.057	0.0	0.0	0.6	******	******	26.4	2600.
3	6	17	0	0.059	0.0	0.0	0.6	******	******	26.0	2700.
3	6	17	15	0.060	0.0	0.0	0.6	******	******	26.0	2670.
3	6	17	30	0.059	0.0	0.0	0.7	******	******	25.4	2630.
3	6	17	45	0.058	0.0	0.0	0.6	******	******	25.5	2630.
3	6	18	0	0.058	0.0	0.0	0.6	******	******	25.9	2680.
3	6	18	15	0.058	0.0	0.0	0.5	******	******	25.8	2710.
3	6	18	30	0.059	0.0	0.0	0.5	******	******	25.4	2650.
3	6	18	45	0.058	0.0	0.0	0.6	******	******	25.8	2670.
3	6	19	0	0.061	0.0	0.0	0.5	******	******	26.0	2650.
3	6	19	15	0.059	0.0	0.0	0.6	******	******	25.8	2660.
3	6	19	30	0.058	0.0	0.0	0.6	******	******	25.7	2650.
3	6	19	45	0.060	0.0	0.0	0.7	******	******	25.8	2610.
3	6	20	0	0.059	0.0	0.002	0.6	******	******	26.0	2570.
3	6	20	15	0.060	0.0	0.005	0.5	******	******	26.0	2700.
3	6	20	30	0.058	0.0	0.006	0.6	******	******	25.8	2670.
3	6	20	45	0.058	0.0	0.0	0.7	******	******	25.6	2660.
3	6	21	0	0.061	0.0	0.0	0.6	******	******	25.8	2660.
3	6	21	15	0.059	0.0	0.0	0.7	******	******	26.0	2670.
3	6	21	30	0.057	0.0	0.0	0.5	******	******	26.2	2670.
3	6	21	45	0.060	0.0	0.0	0.5	******	******	26.0	2710.
3	6	22	0	0.058	0.0	0.002	0.5	******	******	25.8	2460.
3	6	22	15	0.060	0.0	0.0	0.5	******	******	25.9	2650.
3	6	22	30	0.059	0.0	0.002	0.7	******	******	26.2	2600.
3	6	22	45	0.061	0.0	0.0	0.6	******	******	25.7	2650.
3	6	23	0	0.060	0.0	0.002	0.5	******	******	25.8	2650.
3	6	23	15	0.060	0.0	0.0	0.4	******	******	25.8	2640.
3	6	23	30	0.058	0.0	0.0	0.6	******	******	25.9	2680.
3	6	23	45	0.060	0.0	0.0	0.6	******	******	26.2	2680.
3	6	24	0	0.062	0.0	0.0	0.6	******	******	25.8	2670.
3	6	24	15	0.061	0.0	0.0	0.5	******	******	25.8	2660.
3	6	24	30	0.060	0.0	0.0	0.6	******	******	25.9	2640.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	6	24	45	0.061	0.0	0.003	0.5	******	******	25.8	2590.
3	6	25	0	0.062	0.0	0.0	0.5	******	******	26.0	2610.
3	6	25	15	0.064	0.0	0.001	0.5	******	******	26.3	2650.
3	6	25	30	0.062	0.0	0.0	0.4	******	******	25.9	2670.
3	6	25	45	0.061	0.0	0.0	0.5	******	******	26.4	2670.
3	6	26	0	0.062	0.0	0.0	0.4	******	******	26.3	2680.
3	6	26	15	0.062	0.0	0.0	0.5	******	******	26.3	2670.
3	6	26	30	0.066	0.0	0.0	0.6	******	******	26.3	2710.
3	6	26	45	0.060	0.0	0.0	0.6	******	******	26.4	2670.
3	6	27	0	0.060	0.0	0.0	0.5	******	******	26.3	2680.
3	6	27	15	0.060	0.0	0.0	0.5	******	******	27.3	2700.
3	6	27	30	0.063	0.0	0.0	0.6	******	******	26.2	2670.
3	6	27	45	0.062	0.0	0.0	0.6	******	******	26.4	2720.
3	6	28	0	0.064	0.0	0.001	0.5	******	******	26.4	2730.
3	6	28	15	0.059	0.0	0.0	0.6	******	******	26.4	2670.
3	6	28	30	0.062	0.0	0.001	0.5	******	******	26.7	2720.
3	6	28	45	0.063	0.002	0.002	0.5	******	******	26.3	2650.
3	6	29	0	0.059	0.0	0.0	0.5	******	******	26.4	2630.
3	6	29	15	0.057	0.0	0.0	0.5	******	******	26.7	2680.
3	6	29	30	0.061	0.0	0.0	0.6	******	******	26.5	2660.
3	6	29	45	0.058	0.0	0.0	0.5	******	******	26.4	2680.
3	6	30	0	0.060	0.0	0.0	0.6	******	******	26.8	2680.
3	6	30	15	0.060	0.0	0.0	0.6	******	******	26.3	2600.
3	6	30	30	0.058	0.0	0.0	0.5	******	******	26.7	2680.
3	6	30	45	0.059	0.0	0.0	0.5	******	******	26.3	2670.
3	6	31	0	0.057	0.0	0.0	0.5	******	******	26.4	2660.
3	6	31	15	0.057	0.0	0.0	0.4	******	******	26.2	2650.
3	6	31	30	0.058	0.0	0.0	0.4	******	******	26.0	2660.
3	6	31	45	0.057	0.0	0.0	0.5	******	******	26.5	2670.
3	6	32	0	0.056	0.0	0.0	0.5	******	******	26.5	2690.
3	6	32	15	0.057	0.0	0.0	0.5	******	******	26.1	2650.
3	6	32	30	0.057	0.0	0.002	0.5	******	******	26.4	2710.
3	6	32	45	0.060	0.001	0.001	0.6	******	******	26.4	2700.
3	6	33	0	0.059	0.0	0.0	0.6	******	******	26.3	2670.
3	6	33	15	0.058	0.0	0.0	0.6	******	******	26.3	2670.
3	6	33	30	0.060	0.0	0.0	0.5	******	******	26.7	2590.
3	6	33	45	0.059	0.0	0.0	0.5	******	******	26.4	2720.
3	6	34	0	0.056	0.0	0.0	0.5	******	******	26.7	2680.
4	6	34	15	0.059	0.0	0.0	0.5	******	******	26.3	2640.
4	6	34	30	0.056	0.0	0.0	0.6	******	******	26.4	2550.
4	6	34	45	0.058	0.0	0.002	0.6	******	******	26.3	2680.
4	6	35	0	0.059	0.001	0.001	0.5	******	******	26.3	2610.
4	6	35	15	0.062	0.0	0.002	0.6	******	******	26.4	2660.
4	6	35	30	0.060	0.0	0.0	0.6	******	******	26.5	2680.
4	6	35	45	0.060	0.0	0.0	0.4	******	******	26.7	2680.
4	6	36	0	0.061	0.0	0.0	0.6	******	******	26.4	2720.
5	6	36	15	0.062	0.0	0.0	0.5	******	******	26.5	2680.
5	6	36	30	0.060	0.0	0.002	0.6	******	******	26.4	2560.
5	6	36	45	0.059	0.0	0.001	0.6	******	******	26.3	2670.
5	6	37	0	0.063	0.0	0.002	0.4	******	******	26.8	2670.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	37	15	0.060	0.0	0.0	0.5	******	******	26.8	2720.
5	6	37	30	0.061	0.0	0.0	0.4	******	******	26.9	2670.
5	6	37	45	0.059	0.0	0.003	0.6	******	******	26.8	2690.
5	6	38	0	0.063	0.0	0.0	0.6	******	******	26.4	2650.
5	6	38	15	0.062	0.0	0.0	0.6	******	******	26.7	2720.
5	6	38	30	0.060	0.0	0.0	0.6	******	******	26.8	2670.
5	6	38	45	0.064	0.0	0.0	0.5	******	******	26.6	2730.
5	6	39	0	0.060	0.0	0.0	0.6	******	******	26.9	2620.
5	6	39	15	0.062	0.0	0.004	0.6	******	******	26.6	2650.
5	6	39	30	0.066	0.0	0.002	0.6	******	******	26.4	2680.
5	6	39	45	0.061	0.0	0.0	0.6	******	******	26.3	2640.
5	6	40	0	0.061	0.0	0.0	0.5	******	******	26.5	2680.
5	6	40	15	0.061	0.0	0.003	0.5	******	******	26.8	2750.
5	6	40	30	0.059	0.0	0.0	0.5	******	******	26.7	2720.
5	6	40	45	0.063	0.0	0.0	0.6	******	******	26.4	2710.
5	6	41	0	0.060	0.0	0.003	0.5	******	******	26.8	2710.
5	6	41	15	0.065	0.0	0.0	0.7	******	******	26.4	2700.
5	6	41	30	0.065	0.0	0.003	0.5	******	******	26.7	2680.
5	6	43	0	0.063	0.0	0.0	0.5	******	******	26.4	2690.
5	6	43	15	0.063	0.0	0.0	0.5	******	******	26.8	2690.
5	6	43	30	0.065	0.0	0.0	0.5	******	******	26.5	2720.
5	6	43	45	0.062	0.0	0.0	0.5	******	******	26.9	2600.
5	6	44	0	0.061	0.0	0.0	0.5	******	******	26.6	2690.
5	6	44	15	0.063	0.0	0.0	0.6	******	******	26.4	2680.
5	6	44	30	0.061	0.0	0.0	0.6	******	******	26.8	2690.
5	6	44	45	0.063	0.0	0.0	0.6	******	******	26.3	2670.
5	6	45	0	0.062	0.0	0.002	0.6	******	******	26.5	2710.
5	6	45	15	0.063	0.0	0.001	0.5	******	******	26.3	2700.
5	6	45	30	0.062	0.003	0.003	0.6	******	******	26.3	2690.
5	6	45	45	0.064	0.0	0.002	0.5	******	******	26.4	2700.
5	6	46	0	0.062	0.0	0.002	0.5	******	8.0	26.5	2740.
5	6	46	15	0.064	0.0	0.006	0.4	******	9.1	26.4	2710.
5	6	46	30	0.061	0.002	0.002	0.5	******	9.6	26.4	2680.
5	6	46	45	0.061	0.0	0.0	0.6	******	10.4	26.4	2550.
5	6	47	0	0.062	0.0	0.0	0.5	******	11.2	26.4	2610.
5	6	47	15	0.064	0.0	0.0	0.6	******	14.4	26.4	2720.
5	6	47	30	0.061	0.0	0.0	0.6	******	17.4	26.3	2660.
5	6	47	45	0.062	0.0	0.001	0.5	******	17.9	26.4	2690.
5	6	48	0	0.060	0.0	0.003	0.4	******	18.2	26.6	2710.
5	6	48	15	0.061	0.0	0.0	0.5	******	18.1	26.4	2690.
5	6	48	30	0.059	0.0	0.001	0.6	******	17.8	26.4	2670.
5	6	48	45	0.060	0.0	0.0	0.5	******	16.6	26.3	2670.
5	6	49	0	0.060	0.0	0.0	0.7	******	16.2	26.3	2660.
5	6	49	15	0.057	0.0	0.0	0.6	******	17.8	26.4	2720.
5	6	49	30	0.062	0.0	0.0	0.6	******	18.3	26.4	2730.
5	6	49	45	0.061	0.0	0.001	0.5	******	17.2	26.4	2660.
5	6	50	0	0.059	0.0	0.002	0.5	******	15.4	26.2	2690.
5	6	50	15	0.059	0.0	0.0	0.7	******	15.9	26.8	2690.
5	6	50	30	0.061	0.0	0.002	0.7	******	15.2	26.0	2670.
5	6	50	45	0.062	0.0	0.0	0.5	******	15.3	26.4	2700.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	51	0	0.061	0.0	0.0	0.6	******	18.4	25.8	2680.
5	6	51	15	0.060	0.0	0.0	0.5	******	20.6	26.0	2670.
5	6	51	30	0.062	0.0	0.002	0.5	******	19.2	26.5	2700.
5	6	51	45	0.060	0.0	0.0	0.5	******	17.8	26.2	2690.
6	6	52	0	0.059	0.0	0.0	0.5	******	16.8	26.2	2680.
6	6	54	0	0.060	0.0	0.003	0.6	******	17.0	26.2	2670.
6	6	54	15	0.061	0.0	0.001	0.5	******	17.8	26.0	2710.
6	6	54	30	0.057	0.0	0.0	0.5	******	18.9	26.3	2690.
7	6	54	45	0.059	0.0	0.0	0.7	******	20.2	26.0	2600.
7	6	55	0	0.060	0.0	0.0	0.6	******	20.8	26.2	2750.
7	6	55	15	0.059	0.0	0.0	0.6	******	18.9	25.9	2660.
7	6	55	30	0.061	0.0	0.001	0.5	******	15.8	25.8	2670.
7	6	55	45	0.063	0.0	0.003	0.6	******	14.6	26.2	2670.
7	6	56	0	0.061	0.0	0.0	0.6	******	15.1	25.7	2670.
7	6	56	15	0.061	0.0	0.0	0.6	******	18.4	26.3	2710.
7	6	56	30	0.059	0.0	0.0	0.6	******	21.2	25.6	2680.
7	6	56	45	0.059	0.0	0.0	0.5	******	22.6	25.8	2690.
7	6	57	0	0.061	0.0	0.0	0.6	******	22.8	25.4	2670.
7	6	57	15	0.060	0.0	0.0	0.6	******	23.0	26.2	2680.
7	6	57	30	0.063	0.0	0.0	0.6	******	23.5	24.7	2640.
7	6	57	45	0.062	0.0	0.0	0.5	******	24.3	25.9	2700.
7	6	58	0	0.061	0.0	0.0	0.5	******	23.9	25.8	2680.
7	6	58	15	0.062	0.0	0.0	0.6	******	22.6	26.2	2740.
7	6	58	30	0.064	0.0	0.0	0.5	******	20.4	26.4	2670.
7	6	58	45	0.061	0.0	0.0	0.5	******	18.6	26.1	2730.
7	6	59	0	0.064	0.0	0.002	0.5	******	17.7	26.4	2700.
7	6	59	15	0.062	0.0	0.0	0.4	******	19.2	26.2	2740.
7	6	59	30	0.063	0.0	0.003	0.5	******	20.9	26.4	2630.
7	6	59	45	0.063	0.0	0.001	0.5	******	21.8	26.3	2750.
7	7	0	0	0.062	0.0	0.001	0.5	******	19.6	25.9	2600.
7	7	0	15	0.062	0.0	0.0	0.6	******	17.5	26.0	2690.
7	7	0	30	0.060	0.0	0.003	0.5	******	16.9	25.9	2670.
7	7	0	45	0.063	0.0	0.0	0.5	******	16.4	26.3	2710.
7	7	1	0	0.062	0.0	0.0	0.5	******	14.8	26.3	2700.
7	7	1	15	0.061	0.0	0.0	0.5	******	15.3	26.3	2620.
7	7	1	30	0.062	0.0	0.0	0.5	******	16.8	26.2	2710.
7	7	1	45	0.063	0.0	0.0	0.5	******	18.4	26.5	2740.
7	7	2	0	0.064	0.0	0.0	0.5	******	20.3	25.8	2710.
7	7	2	15	0.064	0.0	0.0	0.5	******	21.3	26.4	2740.
7	7	2	30	0.065	0.0	0.0	0.5	******	21.5	26.4	2740.
7	7	2	45	0.061	0.0	0.0	0.5	******	19.5	26.4	2670.
7	7	3	0	0.065	0.0	0.0	0.5	******	19.1	26.8	2720.
7	7	3	15	0.064	0.0	0.0	0.5	******	17.7	26.3	2680.
7	7	3	30	0.063	0.0	0.0	0.5	******	19.7	26.4	2710.
7	7	3	45	0.067	0.0	0.0	0.4	******	19.3	26.9	2750.
7	7	4	0	0.065	0.0	0.0	0.5	******	19.4	26.3	2740.
7	7	4	15	0.065	0.0	0.0	0.6	******	20.7	26.8	2750.
7	7	4	30	0.063	0.0	0.0	0.5	******	22.6	25.4	2710.
7	7	4	45	0.064	0.0	0.0	0.5	******	23.8	26.4	2740.
7	7	5	0	0.065	0.0	0.004	0.5	******	23.2	26.4	2710.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	7	5	15	0.064	0.0	0.0	0.5	******	20.9	25.5	2710.
7	7	5	30	0.061	0.0	0.0	0.6	******	18.4	26.3	2670.
7	7	5	45	0.058	0.0	0.002	0.5	******	18.3	26.3	2670.
7	7	6	0	0.062	0.0	0.0	0.7	******	20.6	26.4	2680.
7	7	6	15	0.062	0.0	0.0	0.5	******	21.9	26.7	2710.
7	7	6	30	0.060	0.0	0.0	0.5	******	21.2	26.3	2710.
7	7	6	45	0.063	0.0	0.0	0.6	******	20.2	26.5	2700.
7	7	7	0	0.063	0.0	0.0	0.5	******	20.1	26.8	2730.
7	7	7	15	0.061	0.0	0.0	0.6	******	20.6	26.8	2750.
7	7	7	30	0.060	0.0	0.0	0.5	******	19.0	26.4	2680.
7	7	7	45	0.060	0.0	0.0	0.5	******	19.3	26.3	2710.
7	7	8	0	0.063	0.0	0.0	0.6	******	19.4	26.8	2720.
7	7	8	15	0.061	0.0	0.0	0.6	******	20.7	26.4	2700.
7	7	8	30	0.061	0.0	0.0	0.6	******	21.7	26.4	2740.
7	7	8	45	0.061	0.0	0.0	0.6	******	22.7	26.4	2720.
7	7	9	0	0.062	0.0	0.0	0.4	******	21.3	26.9	2600.
7	7	9	15	0.061	0.0	0.0	0.6	******	20.4	26.5	2670.
7	7	9	30	0.060	0.0	0.0	0.6	******	18.6	26.8	2620.
7	7	9	45	0.061	0.001	0.002	0.5	******	17.2	26.7	2810.
7	7	10	0	0.058	0.0	0.0	0.6	******	16.2	26.8	2720.
7	7	10	15	0.059	0.0	0.0	0.5	******	16.0	26.8	2680.
7	7	10	30	0.061	0.0	0.016	0.5	******	16.4	26.7	2720.
7	7	10	45	0.056	0.0	0.003	0.4	******	17.7	26.3	2710.
7	7	11	0	0.057	0.0	0.003	0.6	******	19.6	25.8	2680.
7	7	11	15	0.061	0.0	0.0	0.6	******	20.0	26.8	2690.
7	7	11	30	0.059	0.0	0.0	0.6	******	19.8	26.3	2690.
7	7	11	45	0.059	0.0	0.0	0.6	******	18.4	26.9	2670.
7	7	12	0	0.057	0.0	0.0	0.7	******	18.1	26.4	2630.
7	7	12	15	0.059	0.0	0.0	0.5	******	18.2	27.3	2680.
7	7	12	30	0.060	0.0	0.0	0.6	******	19.4	26.4	2700.
7	7	12	45	0.058	0.0	0.0	0.5	******	20.0	27.3	2700.
7	7	13	0	0.059	0.0	0.0	0.4	******	22.4	27.1	2750.
7	7	13	15	0.061	0.0	0.0	0.6	******	23.4	26.4	2680.
S 2	7	25	30	0.063	0.0	0.002	0.7	******	18.2	26.3	2500.
S 2	7	25	45	0.065	0.0	0.0	0.4	******	21.0	26.3	2550.
S 2	7	26	0	0.063	0.0	0.0	0.6	******	22.7	26.3	2600.
S 2	7	26	15	0.064	0.0	0.004	0.5	******	21.0	26.5	2700.
S 2	7	26	30	0.061	0.0	0.0	0.5	******	19.2	26.8	2750.
S 2	7	26	45	0.061	0.0	0.0	0.5	******	19.0	26.7	2800.
S 2	7	27	0	0.065	0.0	0.0	0.6	******	20.8	25.8	2900.
S 2	7	27	15	0.066	0.0	0.002	0.6	******	21.5	25.8	2950.
S 2	7	27	30	0.066	0.0	0.0	0.7	******	19.5	24.9	3000.
S 2	7	27	45	0.067	0.0	0.0	0.7	******	15.8	26.4	3100.
S 2	7	28	0	0.063	0.0	0.0	0.6	******	13.5	26.0	3200.
S 2	7	28	15	0.065	0.0	0.0	0.6	******	15.8	25.8	3250.
S 2	7	28	30	0.065	0.0	0.0	0.6	******	16.9	26.0	3350.
S 2	7	28	45	0.066	0.0	0.0	0.5	******	18.4	25.8	3450.
S 2	7	29	0	0.067	0.0	0.0	0.7	******	19.8	25.3	3550.
S 2	7	29	15	0.067	0.0	0.0	0.5	******	22.1	25.3	3650.
S 2	7	29	30	0.068	0.0	0.0	0.6	******	21.5	25.4	3750.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	29	45	0.063	0.0	0.0	0.6	******	19.9	25.0	3800.
S 2	7	30	0	0.058	0.0	0.0	0.7	******	17.4	24.5	3900.
S 2	7	30	15	0.059	0.0	0.0	0.5	******	16.2	24.9	4000.
S 2	7	30	30	0.059	0.0	0.0	0.6	******	15.5	25.0	4100.
S 2	7	30	45	0.056	0.0	0.0	0.6	******	15.6	24.5	4200.
S 2	7	31	0	0.057	0.0	0.001	0.6	******	13.9	24.6	4300.
S 2	7	31	15	0.060	0.0	0.0	0.5	******	12.6	24.5	4400.
S 2	7	31	30	0.068	0.0	0.0	0.5	******	12.1	23.9	4500.
S 2	7	31	45	0.066	0.0	0.0	0.6	******	12.9	23.9	4600.
S 2	7	32	0	0.065	0.0	0.0	0.5	******	14.4	23.5	4700.
S 2	7	32	15	0.065	0.0	0.0	0.7	******	13.4	23.5	4800.
S 2	7	32	30	0.065	0.0	0.003	0.6	******	11.7	23.6	4900.
S 2	7	32	45	0.070	0.0	0.003	0.6	******	12.6	23.1	5000.
S 2	7	33	0	0.071	0.0	0.003	0.6	******	15.5	23.1	5100.
S 2	7	33	15	0.072	0.0	0.0	0.5	******	19.4	23.0	5200.
S 2	7	33	30	0.071	0.0	0.0	0.6	******	19.3	22.5	5300.
S 2	7	33	45	0.068	0.0	0.0	0.6	******	18.5	22.5	5400.
S 2	7	34	0	0.073	0.0	0.005	0.6	******	20.7	22.1	5500.
S 2	7	34	15	0.070	0.0	0.001	0.5	******	19.8	22.1	5600.
S 2	7	34	30	0.064	0.0	0.001	0.6	******	17.1	21.7	5700.
S 2	7	34	45	0.065	0.0	0.0	0.6	******	14.3	21.5	5800.
S 2	7	35	0	0.060	0.0	0.0	0.8	******	13.9	21.7	5900.
S 2	7	35	15	0.062	0.0	0.001	0.6	******	14.7	21.6	6000.
S 2	7	35	30	0.060	0.0	0.0	0.7	******	16.3	21.2	6100.
S 2	7	35	45	0.062	0.0	0.0	0.6	******	16.3	20.3	6200.
S 2	7	36	0	0.066	0.0	0.0	0.6	******	15.5	20.7	6250.
S 2	7	36	15	0.067	0.0	0.0	0.4	******	14.8	20.1	6350.
S 2	7	36	30	0.069	0.0	0.0	0.6	******	13.7	19.0	6450.
S 2	7	36	45	0.068	0.0	0.001	0.5	******	9.9	19.7	6550.
S 2	7	37	0	0.071	0.0	0.003	0.5	******	6.9	19.8	6650.
S 2	7	37	15	0.069	0.0	0.002	0.5	******	7.0	19.7	6750.
S 2	7	37	30	0.059	0.0	0.006	0.5	******	6.3	19.7	6800.
S 2	7	37	45	0.067	0.0	0.004	0.5	******	4.7	19.3	6900.
S 2	7	38	0	0.065	0.0	0.0	0.5	******	4.2	19.7	7000.
S 2	7	38	15	0.070	0.0	0.0	0.5	******	3.6	18.8	7100.
S 2	7	38	30	0.069	0.0	0.0	0.4	******	2.8	18.9	7200.
S 2	7	38	45	0.063	0.0	0.0	0.4	******	2.9	18.9	7300.
S 2	7	39	0	0.071	0.0	0.0	0.4	******	3.7	18.1	7450.
S 2	7	39	15	0.069	0.0	0.0	0.5	******	3.5	17.7	7550.
S 2	7	39	30	0.068	0.0	0.003	0.5	******	1.7	18.4	7650.
S 2	7	39	45	0.069	0.0	0.003	0.6	******	0.5	18.4	7800.
S 2	7	40	0	0.067	0.0	0.0	0.5	******	0.2	18.4	7900.
S 2	7	40	15	0.066	0.0	0.0	0.6	******	1.3	17.3	8000.
S 2	7	40	30	0.069	0.001	0.001	0.4	******	2.5	17.9	8100.
S 2	7	40	45	0.074	0.0	0.0	0.6	******	4.0	17.4	8150.
S 2	7	41	0	0.084	0.0	0.0	0.4	******	1.5	17.4	8250.
S 2	7	41	15	0.083	0.0	0.002	0.4	******	-0.2	17.9	8350.
S 2	7	41	30	0.083	0.0	0.0	0.5	******	-0.4	17.3	8400.
S 2	7	41	45	0.083	0.0	0.0	0.5	******	1.5	17.8	8500.
S 2	7	42	0	0.079	0.0	0.0	0.5	******	1.9	17.2	8600.

TULSA FLIGHT NUMBER 5 DATE: 8-26

LEG	HR : MIN : SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7 : 42 : 15	0.084	0.0	0.0	0.5	******	3.0	16.9	8650.
S 2	7 : 42 : 30	0.082	0.0	0.001	0.4	******	3.2	16.9	8750.
S 2	7 : 42 : 45	0.082	0.0	0.0	0.4	******	4.1	16.7	8850.
S 2	7 : 43 : 0	0.080	0.0	0.0	0.5	******	4.9	16.6	8900.
S 2	7 : 43 : 15	0.080	0.0	0.0	0.5	******	6.1	16.5	9000.
S 2	7 : 43 : 30	0.081	0.0	0.0	0.5	******	6.4	15.7	9100.
S 2	7 : 43 : 45	0.082	0.001	0.002	0.4	******	5.6	15.9	9150.
S 2	7 : 44 : 0	0.081	0.0	0.012	0.5	******	3.7	15.8	9250.
S 2	7 : 44 : 15	0.083	0.0	0.001	0.5	******	4.0	16.0	9350.
S 2	7 : 44 : 30	0.083	0.0	0.001	0.4	******	4.5	15.8	9400.
S 2	7 : 44 : 45	0.076	0.0	0.0	0.5	******	3.9	15.0	9500.
S 2	7 : 45 : 0	0.077	0.0	0.0	0.4	******	3.3	14.0	9600.
S 2	7 : 45 : 15	0.079	0.0	0.0	0.5	******	1.9	15.3	9650.
S 2	7 : 45 : 30	0.079	0.0	0.0	0.4	******	1.2	14.8	9750.
S 2	7 : 45 : 45	0.077	0.0	0.0	0.5	******	2.2	14.5	9850.
S 2	7 : 46 : 0	0.077	0.0	0.0	0.4	******	2.7	15.0	9900.
S 2	7 : 46 : 15	0.077	0.0	0.0	0.4	******	4.0	14.5	10000.

TULSA FLIGHT NUMBER 6 DATE: 8-26-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	11	53	5	0.070	0.0	0.008	0.6	******	15.5	26.4	2490.
1	11	53	20	0.072	0.0	0.003	0.6	******	12.7	25.5	2520.
1	11	53	35	0.076	0.0	0.0	0.8	******	16.3	26.3	2510.
1	11	53	50	0.072	0.0	0.004	0.7	******	18.4	26.4	2510.
1	11	54	5	0.077	0.0	0.0	0.6	******	19.5	26.3	2450.
1	11	54	20	0.076	0.0	0.0	0.6	******	19.2	26.3	2570.
1	11	54	35	0.076	0.0	0.002	0.5	******	18.4	26.2	2490.
1	11	54	50	0.080	0.0	0.0	0.7	******	18.2	26.2	2530.
1	11	55	5	0.080	0.0	0.0	0.7	******	18.7	26.2	2470.
1	11	55	20	0.080	0.0	0.0	0.7	******	19.6	26.4	2560.
1	11	55	35	0.081	0.0	0.003	0.6	******	20.3	26.4	2340.
1	11	55	50	0.077	0.0	0.001	0.8	******	21.4	26.3	2570.
1	11	56	5	0.076	0.0	0.014	0.6	******	22.1	26.4	2610.
1	11	56	20	0.080	0.003	0.008	0.7	******	22.4	26.4	2530.
1	11	56	35	0.079	0.0	0.009	0.5	******	22.6	26.3	2550.
1	11	56	50	0.077	0.0	0.007	0.7	******	20.1	26.3	2520.
1	11	57	5	0.076	0.0	0.0	0.7	******	17.8	26.4	2490.
1	11	57	20	0.074	0.0	0.0	0.7	******	16.5	26.2	2530.
1	11	57	35	0.077	0.0	0.0	0.5	******	18.1	25.2	2520.
1	11	57	50	0.075	0.0	0.0	0.6	******	18.3	26.3	2470.
1	11	58	5	0.074	0.0	0.0	0.5	******	16.9	26.4	2550.
1	11	58	20	0.076	0.0	0.0	0.6	******	12.3	26.2	2490.
1	11	58	35	0.073	0.0	0.0	0.6	******	11.8	26.4	2520.
1	11	58	50	0.075	0.0	0.0	0.7	******	15.2	26.4	2540.
1	11	59	5	0.074	0.0	0.0	0.5	******	18.4	25.8	2530.
1	11	59	20	0.074	0.0	0.0	0.6	******	20.1	26.7	2540.
1	11	59	35	0.073	0.0	0.0	0.5	******	20.2	26.4	2470.
1	11	59	50	0.070	0.0	0.0	0.4	******	20.1	26.5	2610.
1	12	0	5	0.073	0.0	0.0	0.7	******	20.2	26.3	2500.
1	12	0	20	0.072	0.0	0.0	0.7	******	21.2	26.4	2540.
1	12	0	35	0.070	0.0	0.006	0.6	******	20.0	26.5	2470.
1	12	0	50	0.075	0.0	0.001	0.5	******	18.3	26.4	2580.
1	12	1	5	0.070	0.0	0.0	0.7	******	17.2	27.3	2480.
1	12	1	20	0.071	0.0	0.0	0.6	******	20.5	26.0	2520.
1	12	1	35	0.072	0.0	0.0	0.7	******	23.5	25.4	2460.
1	12	1	50	0.072	0.0	0.0	0.6	******	24.9	26.8	2540.
1	12	2	5	0.070	0.0	0.002	0.6	******	23.8	26.0	2530.
1	12	2	20	0.067	0.0	0.0	0.4	******	22.4	27.3	2580.
1	12	2	35	0.072	0.0	0.0	0.7	******	21.7	26.4	2510.
1	12	2	50	0.070	0.0	0.0	0.5	******	21.3	26.7	2440.
1	12	3	5	0.071	0.0	0.0	0.5	******	21.9	26.4	2530.
1	12	3	20	0.071	0.0	0.0	0.6	******	23.5	26.9	2510.
1	12	3	35	0.071	0.0	0.0	0.6	******	25.3	27.3	2550.
1	12	3	50	0.071	0.0	0.0	0.7	******	24.3	26.9	2590.
1	12	4	5	0.070	0.0	0.0	0.6	******	21.8	26.8	2590.
1	12	4	20	0.071	0.0	0.0	0.7	******	19.8	26.4	2460.
1	12	4	35	0.065	0.0	0.0	0.7	******	19.7	27.3	2550.
1	12	4	50	0.071	0.0	0.0	0.6	******	17.2	26.8	2590.
1	12	5	5	0.073	0.0	0.001	0.4	******	13.3	26.8	2540.
1	12	5	20	0.071	0.0	0.0	0.6	******	16.2	26.9	2540.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	5	35	0.074	0.0	0.006	0.8	******	18.6	27.3	2480.
1	12	5	50	0.073	0.0	0.0	0.7	******	19.9	26.9	2540.
1	12	6	5	0.075	0.0	0.005	0.7	******	19.6	27.4	2560.
1	12	6	20	0.075	0.0	0.003	0.7	******	20.9	27.3	2550.
1	12	6	35	0.073	0.0	0.007	0.8	******	21.4	26.3	2530.
1	12	6	50	0.074	0.0	0.004	0.7	******	19.8	27.5	2570.
1	12	7	5	0.075	0.0	0.005	0.7	******	15.5	27.9	2610.
1	12	7	20	0.078	0.0	0.0	0.6	******	11.7	27.8	2530.
1	12	7	35	0.074	0.0	0.002	0.6	******	13.9	27.9	2530.
1	12	7	50	0.077	0.0	0.003	0.7	******	17.0	28.1	2560.
1	12	8	5	0.074	0.0	0.0	0.6	******	18.7	27.7	2570.
1	12	8	20	0.075	0.0	0.0	0.6	******	19.8	27.7	2520.
1	12	8	35	0.075	0.0	0.003	0.7	******	21.5	28.3	2560.
1	12	8	50	0.077	0.0	0.0	0.5	******	22.5	28.3	2640.
1	12	9	5	0.080	0.0	0.0	0.7	******	22.5	27.3	2590.
1	12	9	20	0.076	0.0	0.0	0.6	******	21.9	27.6	2560.
1	12	9	35	0.074	0.0	0.004	0.7	******	21.3	28.3	2630.
1	12	9	50	0.073	0.0	0.009	0.6	******	21.6	28.2	2540.
1	12	10	5	0.075	0.0	0.002	0.6	******	22.4	28.2	2570.
1	12	10	20	0.074	0.0	0.003	0.6	******	23.3	28.4	2580.
1	12	10	35	0.067	0.0	0.005	0.6	******	22.1	28.6	2500.
1	12	10	50	0.068	0.0	0.003	0.7	******	19.3	28.2	2530.
1	12	11	5	0.070	0.0	0.0	0.6	******	17.2	28.3	2530.
1	12	11	20	0.071	0.001	0.001	0.6	******	18.4	28.7	2570.
1	12	11	35	0.073	0.0	0.0	0.5	******	20.5	28.2	2630.
1	12	11	50	0.069	0.0	0.004	0.6	******	20.0	28.7	2520.
1	12	12	5	0.071	0.0	0.0	0.5	******	19.0	28.2	2560.
1	12	12	20	0.071	0.0	0.0	0.6	******	18.1	28.3	2490.
1	12	12	35	0.069	0.0	0.0	0.6	******	17.7	28.8	2480.
1	12	12	50	0.073	0.0	0.0	0.6	******	18.3	28.8	2550.
1	12	13	5	0.071	0.0	0.0	0.6	******	20.0	28.2	2460.
1	12	13	20	0.075	0.0	0.002	0.6	******	22.0	28.3	2510.
1	12	13	35	0.074	0.0	0.007	0.6	******	21.6	28.7	2480.
1	12	13	50	0.073	0.0	0.012	0.6	******	18.9	28.4	2500.
1	12	14	5	0.071	0.0	0.013	0.6	******	18.9	28.3	2560.
1	12	14	20	0.074	0.0	0.001	0.6	******	21.2	28.3	2530.
1	12	14	35	0.075	0.0	0.0	0.6	******	20.2	28.3	2540.
1	12	14	50	0.078	0.0	0.002	0.6	******	16.5	27.3	2540.
1	12	15	5	0.072	0.0	0.0	0.6	******	10.3	28.5	2500.
1	12	15	20	0.077	0.0	0.0	0.6	******	13.3	28.2	2590.
1	12	15	35	0.079	0.0	0.0	0.7	******	19.2	28.7	2560.
1	12	15	50	0.083	0.0	0.0	0.6	******	19.2	28.3	2480.
1	12	16	5	0.082	0.0	0.0	0.6	******	16.7	28.1	2510.
1	12	16	20	0.086	0.0	0.0	0.6	******	15.3	28.2	2510.
1	12	16	35	0.086	0.0	0.002	0.5	******	17.6	29.2	2600.
1	12	16	50	0.085	0.0	0.002	0.6	******	20.6	28.2	2390.
1	12	17	5	0.089	0.0	0.001	0.7	******	22.9	29.2	2510.
1	12	17	20	0.086	0.0	0.005	0.6	******	23.2	28.8	2610.
1	12	17	35	0.083	0.0	0.0	0.5	******	21.7	28.5	2620.
1	12	17	50	0.077	0.0	0.0	0.6	******	21.5	28.7	2500.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR : MIN : SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12 : 18 : 5	0.078	0.0	0.0	0.5	******	20.5	28.3	2510.
1	12 : 18 : 20	0.076	0.0	0.002	0.5	******	19.1	28.7	2560.
1	12 : 18 : 35	0.074	0.0	0.0	0.3	******	19.0	29.2	2530.
1	12 : 18 : 50	0.071	0.0	0.001	0.5	******	20.2	28.8	2550.
1	12 : 19 : 5	0.068	0.0	0.003	0.5	******	19.6	28.7	2480.
1	12 : 19 : 20	0.069	0.0	0.0	0.5	******	18.7	29.0	2600.
1	12 : 19 : 35	0.068	0.0	0.0	0.5	******	17.7	29.0	2530.
1	12 : 19 : 50	0.068	0.0	0.003	0.5	******	18.1	29.2	2580.
1	12 : 20 : 5	0.067	0.0	0.0	0.5	******	17.9	28.8	2490.
1	12 : 20 : 20	0.069	0.0	0.0	0.7	******	16.6	29.2	2600.
2	12 : 20 : 35	0.065	0.004	0.006	0.5	******	14.9	29.0	2530.
2	12 : 20 : 50	0.065	0.0	0.0	0.5	******	16.5	28.9	2500.
2	12 : 21 : 5	0.067	0.0	0.0	0.5	******	16.4	28.8	2500.
2	12 : 21 : 20	0.069	0.0	0.0	0.5	******	14.5	29.1	2530.
2	12 : 21 : 35	0.065	0.0	0.0	0.5	******	10.7	28.7	2500.
2	12 : 21 : 50	0.070	0.0	0.0	0.5	******	13.9	29.0	2530.
2	12 : 22 : 5	0.068	0.0	0.0	0.5	******	15.9	29.2	2600.
2	12 : 22 : 20	0.069	0.0	0.0	0.5	******	17.1	29.2	2530.
2	12 : 22 : 35	0.068	0.003	0.004	0.6	******	18.3	29.3	2530.
2	12 : 22 : 50	0.067	0.0	0.004	0.5	******	21.2	28.2	2530.
2	12 : 23 : 5	0.068	0.0	0.001	0.5	******	23.3	29.3	2510.
2	12 : 23 : 20	0.069	0.001	0.001	0.6	******	21.0	29.5	2490.
3	12 : 23 : 35	0.068	0.001	0.001	0.6	******	17.0	29.8	2540.
3	12 : 23 : 50	0.069	0.0	0.0	0.5	******	16.1	29.6	2550.
3	12 : 24 : 5	0.070	0.0	0.001	0.5	******	17.3	29.2	2570.
3	12 : 24 : 20	0.072	0.0	0.0	0.5	******	20.2	29.2	2510.
3	12 : 24 : 35	0.069	0.0	0.0	0.5	******	20.7	29.2	2550.
3	12 : 24 : 50	0.071	0.003	0.004	0.6	******	18.2	29.4	2540.
3	12 : 25 : 5	0.071	0.0	0.009	0.5	******	15.5	29.5	2530.
3	12 : 25 : 20	0.070	0.0	0.002	0.6	******	14.8	29.3	2530.
3	12 : 25 : 35	0.070	0.0	0.0	0.3	******	18.3	29.7	2520.
3	12 : 25 : 50	0.072	0.0	0.0	0.5	******	22.2	29.0	2570.
3	12 : 26 : 5	0.073	0.0	0.0	0.5	******	22.1	29.1	2510.
3	12 : 26 : 20	0.073	0.0	0.0	0.5	******	19.8	29.7	2540.
3	12 : 26 : 35	0.080	0.0	0.0	0.4	******	19.4	29.3	2550.
3	12 : 26 : 50	0.078	0.0	0.0	0.6	******	20.6	29.3	2470.
3	12 : 27 : 5	0.077	0.0	0.004	0.5	******	21.7	28.7	2480.
3	12 : 27 : 20	0.081	0.0	0.0	0.5	******	21.3	28.8	2490.
3	12 : 27 : 35	0.077	0.0	0.0	0.4	******	22.1	29.3	2550.
3	12 : 27 : 50	0.082	0.0	0.0	0.6	******	22.2	29.3	2540.
3	12 : 28 : 5	0.086	0.0	0.0	0.6	******	21.9	29.2	2600.
3	12 : 28 : 20	0.085	0.0	0.009	0.6	******	21.9	29.3	2540.
3	12 : 28 : 35	0.084	0.0	0.0	0.5	******	22.5	28.3	2550.
3	12 : 28 : 50	0.080	0.0	0.0	0.5	******	22.0	28.9	2570.
3	12 : 29 : 5	0.078	0.0	0.002	0.6	******	20.1	28.7	2460.
3	12 : 29 : 20	0.077	0.0	0.0	0.6	******	19.2	29.0	2530.
3	12 : 29 : 35	0.073	0.0	0.003	0.7	******	20.4	29.0	2460.
3	12 : 29 : 50	0.077	0.0	0.0	0.5	******	22.1	29.2	2530.
3	12 : 30 : 5	0.074	0.0	0.0	0.5	******	22.1	28.2	2490.
3	12 : 30 : 20	0.071	0.0	0.0	0.6	******	21.0	29.0	2580.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	12	30	35	0.074	0.0	0.0	0.5	******	20.0	28.7	2520.
3	12	30	50	0.073	0.0	0.0	0.5	******	19.6	28.7	2500.
3	12	31	5	0.070	0.0	0.0	0.6	******	19.1	28.7	2590.
3	12	31	20	0.072	0.0	0.0	0.6	******	18.5	28.7	2540.
3	12	31	35	0.073	0.0	0.007	0.5	******	18.7	28.7	2480.
3	12	31	50	0.072	0.0	0.007	0.6	******	19.8	28.7	2590.
3	12	32	5	0.072	0.0	0.005	0.5	******	20.5	28.8	2600.
3	12	32	20	0.089	0.0	0.006	0.7	******	20.4	28.7	2550.
3	12	32	35	0.074	0.0	0.003	0.6	******	18.1	28.7	2500.
3	12	32	50	0.075	0.0	0.0	0.5	******	16.6	28.2	2480.
3	12	33	5	0.082	0.0	0.0	0.5	******	16.3	28.7	2480.
3	12	33	20	0.078	0.0	0.0	0.7	******	20.2	28.6	2570.
3	12	33	35	0.078	0.0	0.0	0.7	******	21.3	28.5	2500.
3	12	33	50	0.075	0.0	0.0	0.5	******	21.6	27.7	2540.
3	12	34	5	0.076	0.0	0.0	0.5	******	21.0	28.7	2500.
3	12	34	20	0.082	0.0	0.0	0.4	******	21.4	28.3	2500.
3	12	34	35	0.080	0.0	0.0	0.5	******	20.5	28.7	2610.
3	12	34	50	0.082	0.0	0.0	0.5	******	19.7	28.3	2620.
3	12	35	5	0.075	0.0	0.0	0.6	******	19.5	28.7	2520.
3	12	35	20	0.079	0.0	0.005	0.6	******	20.6	29.2	2580.
3	12	35	35	0.079	0.0	0.002	0.6	******	21.5	28.5	2550.
3	12	35	50	0.074	0.0	0.0	0.6	******	21.8	28.3	2350.
3	12	36	5	0.072	0.0	0.004	0.6	******	22.9	28.2	2430.
3	12	36	20	0.079	0.0	0.001	0.6	******	23.3	29.2	2490.
3	12	36	35	0.073	0.0	0.0	0.6	******	22.5	28.8	2570.
3	12	36	50	0.076	0.0	0.0	0.6	******	23.1	28.2	2570.
3	12	37	5	0.072	0.0	0.0	0.6	******	23.1	28.5	2560.
3	12	37	20	0.072	0.0	0.0	0.7	******	21.0	28.7	2550.
3	12	37	35	0.072	0.0	0.0	0.6	******	20.1	28.4	2610.
3	12	37	50	0.070	0.0	0.004	0.6	******	20.2	28.0	2570.
3	12	38	5	0.074	0.0	0.0	0.5	******	21.6	26.7	2540.
3	12	38	20	0.073	0.0	0.0	0.4	******	20.6	28.3	2630.
3	12	38	35	0.071	0.0	0.0	0.5	******	17.6	27.9	2520.
3	12	38	50	0.072	0.0	0.0	0.6	******	16.2	27.8	2570.
3	12	39	5	0.072	0.0	0.0	0.7	******	19.4	27.9	2470.
3	12	39	20	0.073	0.0	0.007	0.5	******	22.2	27.6	2480.
3	12	39	35	0.072	0.0	0.003	0.5	******	22.7	27.8	2490.
3	12	39	50	******	0.0	0.0	0.6	******	19.8	28.4	2590.
3	12	40	5	0.072	0.0	0.0	0.6	******	17.8	27.6	2410.
3	12	40	35	0.069	0.0	0.0	0.6	******	20.5	27.3	2580.
4	12	40	50	0.076	0.0	0.0	0.6	******	22.8	27.8	2610.
4	12	41	5	0.073	0.0	0.0	0.6	******	24.7	27.6	2580.
4	12	41	20	0.075	0.0	0.0	0.5	******	23.2	27.3	2550.
4	12	41	35	0.074	0.0	0.002	0.5	******	18.7	27.3	2590.
4	12	41	50	0.070	0.0	0.002	0.7	******	13.1	27.6	2540.
4	12	42	5	0.074	0.0	0.0	0.6	******	12.0	27.4	2540.
4	12	42	20	0.075	0.0	0.0	0.5	******	16.9	26.8	2580.
4	12	42	35	0.075	0.0	0.0	0.7	******	22.1	27.1	2600.
4	12	42	50	0.072	0.0	0.0	0.5	******	21.6	27.6	2550.
4	12	43	5	0.070	0.0	0.0	0.5	******	21.4	27.1	2560.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
4	12	43	20	0.070	0.0	0.008	0.6	******	21.0	27.3	2470.
5	12	43	35	0.074	0.0	0.006	0.6	******	21.3	27.9	2590.
5	12	43	50	0.074	0.001	0.001	0.7	******	22.3	27.3	2570.
5	12	44	5	0.073	0.0	0.007	0.7	******	21.6	27.4	2470.
5	12	44	20	0.073	0.0	0.003	0.5	******	19.3	27.4	2620.
5	12	44	35	0.074	0.0	0.0	0.6	******	16.3	26.9	2540.
5	12	44	50	0.072	0.0	0.0	0.6	******	12.6	27.1	2440.
5	12	45	5	0.071	0.0	0.0	0.6	******	14.7	27.4	2540.
5	12	45	20	0.072	0.0	0.0	0.6	******	17.9	27.2	2470.
5	12	45	35	0.072	0.0	0.0	0.6	******	19.8	27.8	2530.
5	12	45	50	0.077	0.0	0.0	0.7	******	20.0	25.8	2540.
5	12	46	5	0.079	0.0	0.0	0.7	******	18.0	27.8	2880.
5	12	46	20	0.075	0.0	0.0	0.6	******	17.1	27.4	2500.
5	12	46	35	0.075	0.0	0.0	0.7	******	18.7	27.3	2550.
5	12	46	50	0.063	0.0	0.004	0.5	******	21.1	27.3	2510.
5	12	47	5	0.079	0.001	0.002	0.5	******	20.4	27.8	2570.
5	12	47	20	0.076	0.0	0.004	0.6	******	18.8	27.3	2390.
5	12	47	35	0.079	0.005	0.007	0.6	******	16.9	27.7	2530.
5	12	47	50	0.079	0.0	0.0	0.7	******	16.8	27.6	2620.
5	12	48	5	0.087	0.0	0.0	0.5	******	19.8	27.4	2700.
5	12	48	20	0.090	0.0	0.0	0.6	******	21.3	27.3	2510.
5	12	48	35	0.083	0.0	0.0	0.6	******	21.2	27.9	2550.
5	12	48	50	0.085	0.0	0.0	0.6	******	22.3	27.4	2520.
5	12	49	5	0.081	0.0	0.0	0.6	******	23.9	27.9	2610.
5	12	49	20	0.082	0.0	0.0	0.7	******	24.3	28.1	2580.
5	12	49	35	0.083	0.0	0.0	0.6	******	23.0	28.3	2590.
5	12	49	50	0.083	0.0	0.004	0.6	******	21.5	28.4	2580.
5	12	50	5	0.083	0.0	0.0	0.6	******	20.5	27.8	2460.
5	12	50	20	0.083	0.0	0.008	0.5	******	20.9	28.7	2630.
5	12	50	35	0.075	0.0	0.0	0.6	******	22.4	28.5	2500.
5	12	50	50	0.073	0.0	0.002	0.6	******	22.9	28.3	2600.
5	12	51	5	0.076	0.0	0.0	0.5	******	20.8	28.6	2550.
5	12	51	20	0.082	0.0	0.0	0.6	******	20.2	28.7	2610.
5	12	51	35	0.074	0.0	0.0	0.7	******	20.1	28.7	2580.
5	12	51	50	0.077	0.0	0.001	0.6	******	19.8	28.6	2630.
5	12	52	5	0.078	0.005	0.007	0.6	******	18.9	28.8	2620.
5	12	52	20	0.072	0.0	0.0	0.4	******	18.9	28.1	2350.
5	12	52	35	0.075	0.0	0.0	0.6	******	21.4	28.2	2550.
5	12	52	50	0.077	0.0	0.0	0.5	******	22.3	28.5	2540.
5	12	53	5	0.074	0.0	0.004	0.7	******	20.1	28.7	2560.
5	12	53	20	0.073	0.0	0.004	0.6	******	18.4	28.6	2470.
5	12	53	35	0.077	0.0	0.0	0.5	******	18.6	29.2	2520.
5	12	53	50	0.077	0.0	0.0	0.4	******	19.1	28.7	2560.
5	12	54	5	0.077	0.0	0.0	0.5	******	18.3	28.9	2580.
5	12	54	20	0.079	0.0	0.0	0.5	******	16.9	28.7	2560.
5	12	54	35	0.083	0.0	0.0	0.5	******	18.3	28.7	2590.
5	12	54	50	0.087	0.0	0.0	0.6	******	21.0	28.2	2530.
5	12	55	5	0.086	0.002	0.002	0.6	******	22.6	28.0	2490.
5	12	55	20	0.084	0.0	0.001	0.6	******	22.3	28.6	2560.
5	12	55	35	0.083	0.0	0.001	0.6	******	20.8	29.3	2600.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	12	55	50	0.082	0.002	0.007	0.6	******	19.4	29.3	2580.
5	12	56	5	0.088	0.004	0.006	0.6	******	19.2	29.2	2580.
5	12	56	20	0.086	0.0	0.003	0.6	******	20.3	28.8	2550.
5	12	56	35	0.079	0.0	0.0	0.6	******	19.6	28.7	2480.
5	12	56	50	0.080	0.0	0.003	0.6	******	18.0	28.8	2530.
5	12	57	5	0.070	0.0	0.003	0.6	******	16.2	29.1	2570.
5	12	57	20	0.072	0.0	0.002	0.5	******	16.7	28.7	2530.
5	12	57	35	0.068	0.0	0.008	0.5	******	17.4	29.3	2550.
5	12	57	50	0.071	0.0	0.001	0.5	******	18.6	29.2	2640.
5	12	58	5	0.071	0.0	0.002	0.6	******	19.4	29.3	2530.
5	12	58	20	0.071	0.0	0.001	0.5	******	20.5	28.7	2570.
5	12	58	35	0.071	0.0	0.001	0.5	******	20.7	29.0	2550.
5	12	58	50	0.071	0.0	0.006	0.6	******	20.9	29.3	2600.
5	12	59	5	0.072	0.0	0.003	0.6	******	20.9	29.3	2580.
5	12	59	20	0.071	0.0	0.005	0.6	******	19.6	29.5	2490.
5	12	59	35	0.071	0.0	0.003	0.5	******	19.3	29.7	2600.
5	13	1	20	0.069	0.0	0.0	0.6	******	18.6	29.5	2520.
6	13	1	35	0.072	0.0	0.002	0.6	******	19.0	29.7	2610.
6	13	1	50	0.073	0.001	0.001	0.5	******	18.8	29.7	2600.
6	13	2	5	0.070	0.0	0.002	0.5	******	18.9	29.7	2560.
6	13	2	20	0.071	0.0	0.006	0.7	******	19.9	29.1	2550.
6	13	2	35	0.072	0.0	0.003	0.5	******	20.4	29.8	2570.
6	13	2	50	0.071	0.0	0.001	0.5	******	19.8	31.1	2550.
6	13	3	5	0.068	0.0	0.0	0.6	******	20.6	29.7	2560.
6	13	3	20	0.071	0.0	0.003	0.5	******	21.2	29.7	2610.
6	13	3	35	0.071	0.0	0.002	0.5	******	22.0	29.5	2560.
6	13	3	50	0.073	0.0	0.0	0.7	******	20.5	29.6	2700.
6	13	4	5	0.071	0.0	0.0	0.6	******	18.6	29.7	2540.
6	13	4	20	0.072	0.0	0.0	0.6	******	18.6	29.6	2580.
7	13	4	35	0.073	0.0	0.0	0.7	******	21.1	29.6	2600.
7	13	4	50	0.069	0.0	0.0	0.6	******	23.8	29.3	2600.
7	13	5	5	0.068	0.0	0.0	0.6	******	23.5	29.5	2620.
7	13	5	20	0.070	0.0	0.001	0.6	******	20.6	29.6	2560.
7	13	5	35	0.068	0.0	0.0	0.5	******	19.3	29.8	2610.
7	13	5	50	0.071	0.0	0.002	0.5	******	19.1	29.6	2520.
7	13	6	5	0.070	0.0	0.0	0.5	******	19.5	29.2	2490.
7	13	6	20	0.073	0.0	0.003	0.6	******	19.5	29.7	2420.
7	13	6	35	0.070	0.0	0.0	0.6	******	19.5	29.7	2620.
7	13	6	50	0.070	0.0	0.0	0.6	******	19.2	29.2	2430.
7	13	7	5	0.074	0.0	0.003	0.6	******	18.9	29.3	2500.
7	13	7	20	0.073	0.0	0.0	0.6	******	19.1	29.6	2620.
7	13	7	35	0.080	0.0	0.0	0.7	******	20.4	29.7	2560.
7	13	7	50	0.077	0.0	0.002	0.6	******	21.5	27.8	2570.
7	13	8	5	0.080	0.0	0.0	0.7	******	20.6	29.3	2620.
7	13	8	20	0.084	0.0	0.0	0.5	******	20.6	29.6	2580.
7	13	8	35	0.084	0.0	0.0	0.4	******	21.3	29.3	2720.
7	13	8	50	0.081	0.0	0.003	0.5	******	19.6	29.3	2560.
7	13	9	5	0.080	0.0	0.0	0.4	******	16.3	29.3	2590.
7	13	9	20	0.083	0.0	0.0	0.6	******	17.1	29.3	2560.
7	13	9	35	0.084	0.0	0.001	0.6	******	19.6	28.3	2550.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	13	9	50	0.076	0.0	0.004	0.5	******	20.9	29.5	2570.
7	13	10	5	0.077	0.0	0.0	0.5	******	20.4	29.3	2610.
7	13	10	20	0.074	0.0	0.0	0.6	******	19.6	29.6	2580.
7	13	10	35	0.076	0.002	0.002	0.6	******	19.2	28.8	2520.
7	13	10	50	0.076	0.0	0.005	0.6	******	20.3	29.7	2620.
7	13	11	5	0.075	0.0	0.0	0.4	******	21.1	29.2	2580.
7	13	11	20	0.074	0.0	0.002	0.6	******	22.0	29.2	2510.
7	13	11	35	0.076	0.0	0.0	0.5	******	22.2	29.3	2510.
7	13	11	50	0.073	0.0	0.0	0.6	******	23.4	29.2	2410.
7	13	12	5	0.079	0.0	0.001	0.6	******	22.5	29.3	2330.
7	13	12	20	0.073	0.0	0.001	0.7	******	20.7	29.1	2450.
7	13	12	35	0.076	0.0	0.0	0.6	******	20.5	29.3	2580.
8	13	12	50	0.074	0.0	0.0	0.8	******	21.9	28.8	2570.
8	13	13	5	0.075	0.0	0.0	0.6	******	21.4	29.1	2530.
8	13	13	20	0.075	0.0	0.0	0.6	******	20.6	28.8	2560.
8	13	13	35	0.077	0.0	0.0	0.8	******	18.1	28.9	2570.
8	13	13	50	0.072	0.0	0.0	0.6	******	15.6	28.7	2530.
8	13	14	5	0.074	0.0	0.008	0.6	******	17.1	28.6	2350.
8	13	14	20	0.074	0.0	0.003	0.6	******	20.0	29.0	2630.
8	13	14	35	0.070	0.0	0.0	0.5	******	22.5	27.1	2530.
8	13	14	50	0.075	0.0	0.011	0.4	******	23.6	28.8	2560.
8	13	15	5	0.073	0.0	0.0	0.5	******	22.6	28.7	2550.
8	13	15	20	0.070	0.0	0.0	0.6	******	19.2	29.0	2530.
8	13	15	35	0.071	0.0	0.0	0.6	******	17.3	29.0	2490.
8	13	15	50	0.072	0.0	0.0	0.6	******	17.3	29.3	2570.
8	13	16	5	0.072	0.0	0.0	0.5	******	17.0	28.5	2560.
8	13	16	20	0.070	0.0	0.004	0.6	******	14.3	29.1	2560.
8	13	16	35	0.073	0.0	0.005	0.7	******	11.7	28.8	2520.
8	13	16	50	0.068	0.0	0.006	0.6	******	14.5	29.3	2560.
8	13	17	5	0.074	0.0	0.0	0.6	******	18.5	28.3	2530.
8	13	17	20	0.070	0.0	0.0	0.5	******	20.3	28.8	2530.
8	13	17	35	0.071	0.0	0.0	0.5	******	20.6	28.5	2550.
8	13	22	20	0.068	0.0	0.0	0.6	******	19.8	29.1	2470.
8	13	22	35	0.070	0.0	0.0	0.5	******	19.4	29.0	2460.
8	13	22	50	0.069	0.0	0.001	0.7	******	20.0	29.3	2600.
8	13	23	5	0.066	0.0	0.008	0.6	******	21.9	29.0	2560.
8	13	23	20	0.070	0.0	0.004	0.5	******	22.4	28.9	2530.
8	13	23	35	0.077	0.0	0.009	0.6	******	20.3	27.7	2580.
8	13	23	50	0.073	0.0	0.0	0.7	******	17.9	28.8	2480.
8	13	24	5	0.071	0.0	0.0	0.5	******	18.1	28.9	2480.
8	13	24	20	0.068	0.0	0.0	0.6	******	19.3	28.8	2570.
8	13	24	35	0.070	0.0	0.0	0.5	******	18.8	29.2	2640.
8	13	24	50	0.067	0.0	0.001	0.6	******	17.5	29.7	2550.
8	13	25	5	0.066	0.0	0.0	0.5	******	17.6	29.5	2560.
8	13	25	20	0.069	0.0	0.0	0.5	******	17.2	29.1	2490.
8	13	25	35	0.068	0.0	0.0	0.6	******	16.6	29.3	2550.
8	13	25	50	0.066	0.0	0.0	0.6	******	15.8	29.6	2560.
8	13	26	5	0.065	0.0	0.005	0.6	******	16.0	29.3	2530.
8	13	26	35	0.067	0.0	0.006	0.4	******	16.8	29.1	2490.
9	13	26	50	0.068	0.0	0.0	0.7	******	18.9	28.8	2540.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
9	13	27	5	0.066	0.0	0.001	0.5	******	19.3	29.3	2580.
9	13	27	20	0.069	0.0	0.0	0.6	******	18.6	29.2	2550.
9	13	27	35	0.067	0.0	0.018	0.6	******	17.3	29.1	2550.
9	13	27	50	0.068	0.0	0.0	0.5	******	19.7	29.3	2530.
9	13	28	5	0.070	0.0	0.0	0.5	******	21.5	29.3	2560.
9	13	28	20	0.071	0.0	0.0	0.7	******	22.0	28.3	2550.
9	13	28	35	0.069	0.0	0.006	0.7	******	20.4	31.1	2620.
9	13	28	50	0.070	0.0	0.007	0.6	******	19.2	30.2	2560.
9	13	29	5	0.069	0.0	0.013	0.5	******	19.3	29.3	2580.
9	13	29	20	0.069	0.0	0.007	0.5	******	18.4	29.8	2610.
9	13	29	35	0.070	0.0	0.001	0.6	******	18.1	29.6	2580.
9	13	29	50	0.068	0.0	0.0	0.5	******	18.6	29.5	2630.
9	13	30	5	0.071	0.0	0.0	0.6	******	19.6	29.0	2490.
9	13	30	20	0.074	0.0	0.0	0.6	******	20.2	29.0	2640.
9	13	30	35	0.076	0.0	0.001	0.6	******	20.2	29.3	2590.
9	13	30	50	0.072	0.0	0.0	0.6	******	19.4	29.4	2560.
9	13	31	5	0.073	0.0	0.0	0.6	******	21.8	29.5	2610.
9	13	31	20	0.077	0.0	0.0	0.6	******	22.2	28.5	2560.
9	13	31	35	0.080	0.0	0.0	0.5	******	20.4	29.3	2560.
9	13	31	50	0.080	0.0	0.007	0.6	******	17.7	29.2	2640.
9	13	32	5	0.081	0.0	0.0	0.6	******	14.5	29.2	2620.
9	13	32	20	0.082	0.0	0.0	0.6	******	15.6	29.9	2560.
9	13	32	35	0.079	0.0	0.003	0.6	******	18.2	29.8	2630.
9	13	32	50	0.081	0.0	0.001	0.5	******	19.1	29.2	2550.
9	13	33	5	0.073	0.0	0.004	0.6	******	19.3	29.5	2620.
9	13	33	20	0.071	0.0	0.0	0.5	******	20.3	29.6	2650.
9	13	33	35	0.069	0.0	0.0	0.6	******	22.1	29.7	2590.
9	13	33	50	0.068	0.0	0.003	0.5	******	23.3	29.6	2560.
9	13	34	5	0.068	0.0	0.002	0.6	******	22.9	29.8	2560.
9	13	34	20	0.068	0.0	0.0	0.6	******	21.7	29.7	2580.
9	13	34	35	0.067	0.0	0.0	0.5	******	19.6	29.7	2570.
9	13	34	50	0.069	0.0	0.0	0.5	******	17.7	30.1	2580.
9	13	35	5	0.066	0.0	0.0	0.5	******	15.7	30.3	2560.
9	13	35	20	0.067	0.0	0.002	0.6	******	15.2	29.8	2550.
9	13	35	35	0.066	0.0	0.0	0.5	******	14.9	30.2	2580.
9	13	36	20	0.069	0.0	0.0	0.5	******	17.7	30.2	2610.
9	13	36	35	0.067	0.0	0.0	0.5	******	18.2	30.2	2420.
9	13	36	50	0.068	0.0	0.004	0.5	******	17.5	30.0	2490.
9	13	37	5	0.066	0.0	0.016	0.5	******	17.0	30.2	2620.
9	13	37	20	0.071	0.0	0.013	0.6	******	18.1	29.7	2570.
9	13	37	35	0.069	0.0	0.0	0.6	******	19.0	30.1	2570.
9	13	37	50	0.071	0.0	0.006	0.6	******	18.5	29.6	2500.
9	13	38	5	0.077	0.0	0.003	0.5	******	18.9	30.6	2630.
9	13	38	20	0.077	0.0	0.0	0.5	******	19.4	30.2	2640.
9	13	38	35	0.081	0.0	0.001	0.5	******	18.6	30.2	2580.
9	13	38	50	0.082	0.0	0.007	0.6	******	15.4	30.1	2600.
9	13	39	5	0.084	0.0	0.004	0.5	******	13.0	29.8	2560.
9	13	39	20	0.080	0.0	0.002	0.7	******	14.8	30.2	2660.
9	13	39	35	0.079	0.0	0.0	0.6	******	17.7	30.1	2550.
9	13	39	50	0.081	0.0	0.0	0.7	******	21.2	29.7	2550.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
	9	13	40	5	0.077	0.0	0.0	0.6	******	22.1	30.1	2650.
	9	13	40	20	0.073	0.0	0.0	0.6	******	22.1	30.1	2560.
	9	13	40	35	0.073	0.0	0.004	0.5	******	19.7	30.1	2570.
	9	13	40	50	0.071	0.0	0.0	0.7	******	19.1	30.1	2600.
	9	13	41	5	0.071	0.0	0.005	0.6	******	19.7	30.1	2610.
	9	13	41	20	0.072	0.0	0.006	0.5	******	21.6	29.8	2520.
	9	13	41	35	0.076	0.0	0.0	0.5	******	21.8	29.7	2570.
	9	13	41	50	0.067	0.0	0.005	0.5	******	21.1	29.8	2590.
	9	13	42	5	0.071	0.0	0.0	0.6	******	22.1	29.7	2560.
	9	13	42	20	0.068	0.0	0.004	0.6	******	22.4	29.6	2650.
	9	13	42	35	0.070	0.0	0.002	0.5	******	21.0	29.6	2580.
	9	13	42	50	0.071	0.0	0.002	0.5	******	19.6	30.0	2590.
	9	13	43	5	0.073	0.0	0.0	0.5	******	19.8	29.6	2610.
	9	13	43	20	0.070	0.0	0.005	0.5	******	18.9	29.7	2500.
	9	13	43	35	0.067	0.0	0.0	0.5	******	19.4	29.3	2470.
	9	13	43	50	0.068	0.0	0.001	0.5	******	19.6	30.0	2410.
	9	13	44	5	0.067	0.0	0.0	0.0	******	20.9	29.6	2360.
S	1	13	47	20	0.068	0.0	0.007	0.5	******	19.7	30.4	2000.
S	1	13	47	35	0.067	0.0	0.010	0.6	******	18.5	30.2	2050.
S	1	13	47	50	0.071	0.0	0.006	0.6	******	15.4	30.5	2150.
S	1	13	48	5	0.070	0.0	0.008	0.5	******	12.9	30.3	2200.
S	1	13	48	20	0.064	0.0	0.002	0.5	******	14.5	30.6	2250.
S	1	13	48	50	0.071	0.0	0.002	0.5	******	15.9	30.2	2350.
S	1	13	49	5	0.070	0.0	0.0	0.5	******	16.9	30.2	2400.
S	1	13	49	20	0.067	0.0	0.0	0.5	******	19.5	29.2	2450.
S	1	13	49	35	0.069	0.0	0.0	0.5	******	21.0	30.1	2550.
S	1	13	49	50	0.071	0.0	0.001	0.6	******	18.9	29.6	2600.
S	1	13	50	5	0.069	0.0	0.002	0.5	******	13.9	29.7	2650.
S	1	13	50	35	0.073	0.0	0.004	0.5	******	10.4	29.2	2750.
S	1	13	50	50	0.070	0.0	0.0	0.5	******	15.2	29.7	2800.
S	1	13	51	5	0.069	0.0	0.0	0.6	******	20.1	29.2	2850.
S	1	13	51	20	0.070	0.005	******	0.5	******	22.6	29.3	2950.
S	1	13	51	35	0.075	0.003	******	0.7	******	21.9	29.2	3000.
S	1	13	51	50	0.069	0.0	0.005	0.6	******	19.1	29.0	3150.
S	1	13	52	5	0.074	0.0	0.0	0.7	******	19.4	29.1	3250.
S	1	13	52	20	0.070	0.0	0.001	0.6	******	21.6	28.4	3400.
S	1	13	52	35	0.068	0.0	0.0	0.5	******	23.5	28.3	3500.
S	1	13	53	5	0.068	0.0	0.0	0.5	******	22.0	27.9	3650.
S	1	13	53	20	0.067	0.0	0.009	0.4	******	20.6	27.6	3750.
S	1	13	53	35	0.071	0.0	0.008	0.6	******	21.0	28.3	3800.
S	1	13	53	50	0.067	0.0	0.0	0.5	******	22.3	27.3	4000.
S	1	13	54	5	0.070	0.0	0.001	0.5	******	22.6	26.9	4100.
S	1	13	54	20	0.068	0.0	0.009	0.5	******	20.6	27.1	4200.
S	1	13	54	35	0.072	0.0	0.0	0.6	******	19.6	26.4	4300.
S	1	13	54	50	0.069	0.0	0.0	0.5	******	18.2	26.3	4450.
S	1	13	55	5	0.066	0.0	0.003	0.7	******	16.4	26.0	4550.
S	1	13	55	35	0.069	0.0	0.0	0.5	******	13.4	25.9	4650.
S	1	13	55	50	0.067	0.0	0.0	0.6	******	10.9	30.3	4800.
S	1	13	56	5	0.073	0.0	0.0	0.6	******	9.2	24.8	4900.
S	1	13	56	20	0.072	0.0	0.0	0.6	******	11.0	24.0	5000.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	13	56	35	0.068	0.0	0.0	0.6	******	13.3	24.1	5150.
S 1	13	57	5	0.073	0.0	0.0	0.6	******	14.6	24.3	5250.
S 1	13	57	20	0.070	0.0	0.0	0.6	******	13.9	23.6	5400.
S 1	13	57	35	0.072	0.0	0.0	0.8	******	15.1	22.8	5500.
S 1	13	57	50	0.068	0.0	0.002	0.5	******	19.2	22.6	5650.
S 1	13	58	20	0.069	0.0	0.006	0.6	******	21.2	22.4	5750.
S 1	13	58	35	0.073	0.0	0.0	0.6	******	19.3	22.0	5900.
S 1	13	58	50	0.068	0.0	0.0	0.5	******	17.1	20.7	6000.
S 1	13	59	5	0.072	0.0	0.002	0.5	******	15.3	21.6	6150.
S 1	13	59	20	0.070	0.0	0.008	0.6	******	14.8	20.7	6250.
S 1	13	59	35	0.068	0.0	0.015	0.6	******	13.7	20.5	6400.
S 1	13	59	50	0.069	0.0	0.003	0.5	******	14.2	20.3	6500.
S 1	14	0	5	0.069	0.0	0.0	0.4	******	15.3	19.6	6650.
S 1	14	0	35	0.073	0.0	0.0	0.5	******	16.4	19.6	6750.
S 1	14	0	50	0.072	0.0	0.002	0.5	******	15.7	18.3	6900.
S 1	14	1	5	0.073	0.0	0.003	0.7	******	14.0	19.3	7000.
S 1	14	1	20	0.075	0.0	0.002	0.4	******	10.8	19.7	7100.
S 1	14	1	35	0.072	0.0	0.003	0.4	******	9.5	17.9	7250.
S 1	14	2	5	0.075	0.0	0.005	0.5	******	9.2	18.4	7300.
S 1	14	2	20	0.074	0.0	0.0	0.4	******	9.4	17.8	7500.
S 1	14	2	35	0.078	0.0	0.0	0.4	******	7.6	17.6	7650.
S 1	14	2	50	0.071	0.0	0.001	0.4	******	5.3	18.1	7750.
S 1	14	3	5	0.072	0.0	0.005	0.4	******	4.7	16.8	7900.
S 1	14	3	20	0.074	0.0	0.007	0.4	******	6.4	16.8	8000.
S 1	14	3	50	0.077	0.0	0.003	0.5	******	8.9	16.3	8100.
S 1	14	4	5	0.080	0.0	0.004	0.5	******	10.5	16.8	8200.
S 1	14	4	20	0.077	0.0	0.004	0.5	******	11.2	15.9	8300.
S 1	14	4	35	0.075	0.0	0.001	0.5	******	10.1	15.6	8400.
S 1	14	4	50	0.076	0.0	0.006	0.5	******	6.0	15.5	8500.
S 1	14	5	5	0.078	0.0	0.012	0.5	******	2.6	15.9	8600.
S 1	14	5	35	0.077	0.0	0.006	0.5	******	2.4	15.4	8700.
S 1	14	5	50	0.073	0.0	0.002	0.6	******	3.6	14.9	8800.
S 1	14	6	5	0.075	0.0	0.005	0.4	******	2.1	14.8	8900.
S 1	14	6	20	0.075	0.0	0.0	0.6	******	-0.3	14.6	9000.
S 1	14	6	35	0.073	0.0	0.0	0.6	******	1.1	13.9	9150.
S 1	14	7	5	0.071	0.0	0.0	0.6	******	2.3	14.4	9250.
S 1	14	7	20	0.071	0.0	0.0	0.5	******	2.2	14.5	9400.
S 1	14	7	35	0.073	0.0	0.001	0.6	******	-0.3	13.9	9500.
S 1	14	8	5	0.071	0.0	0.009	0.5	******	-0.4	14.5	9650.
S 1	14	8	35	0.077	0.0	0.007	0.5	******	0.6	13.3	9750.
S 1	14	8	50	0.069	0.0	0.004	0.6	******	0.4	13.7	9900.
S 1	14	9	5	0.076	0.0	0.001	0.4	******	-0.5	14.0	10000.
S 1	14	9	35	0.076	0.0	0.0	0.4	******	-2.4	9.3	10100.
S 1	14	9	50	0.079	0.0	0.006	0.4	******	-4.4	13.1	10200.
S 1	14	10	5	0.074	0.0	0.0	0.5	******	-3.5	13.7	10300.
S 1	14	10	20	0.080	0.0	0.004	0.5	******	-2.5	13.0	10400.
S 1	14	10	35	0.081	0.0	0.010	0.5	******	-2.8	12.7	10500.
S 1	14	10	50	0.081	0.0	0.0	0.4	******	-4.0	12.5	10600.
S 1	14	11	5	0.083	0.0	0.0	0.4	******	-3.5	13.1	10750.
S 1	14	11	20	0.084	0.0	0.0	0.6	******	-2.0	11.7	10850.

TULSA FLIGHT NUMBER 6 DATE: 8-26

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	11	50	0.081	0.0	0.0	0.5	******	-0.7	12.2	11000.
S 1	14	12	5	0.082	0.0	0.006	0.5	******	-0.2	12.1	11100.
S 1	14	12	20	0.079	0.0	0.003	0.5	******	1.4	11.7	11200.
S 1	14	12	35	0.078	0.0	0.002	0.4	******	4.9	11.3	11300.
S 1	14	12	50	0.079	0.0	0.009	0.5	******	8.1	11.6	11400.
S 1	14	13	5	0.077	0.0	0.014	0.5	******	3.5	10.8	11500.
S 1	14	13	20	0.081	0.0	0.004	0.6	******	1.6	12.1	11650.
S 1	14	13	35	0.077	0.0	0.0	0.4	******	2.5	11.2	11750.
S 1	14	13	50	0.080	0.0	0.0	0.4	******	1.8	10.6	11850.
S 1	14	14	5	0.076	0.0	0.004	0.4	******	-0.4	11.2	12000.

TULSA FLIGHT NUMBER 9 DATE: 9- 2-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	29	30	0.053	0.003	0.005	0.7	35.4	11.1	25.9	1100.
S 1	5	29	45	0.052	0.003	0.003	0.6	34.5	11.1	25.7	1150.
S 1	5	30	0	0.049	0.003	0.003	0.6	31.5	11.8	26.1	1200.
S 1	5	30	15	0.051	0.001	0.001	0.6	31.5	13.1	26.1	1250.
S 1	5	30	30	0.052	0.001	0.001	0.5	29.1	13.6	26.2	1300.
S 1	5	30	45	0.050	0.004	0.004	0.7	32.6	13.3	26.2	1350.
S 1	5	31	0	0.051	0.004	0.004	0.7	32.6	13.3	26.6	1400.
S 1	5	31	15	0.052	0.004	0.004	0.7	30.8	12.3	26.4	1450.
S 1	5	31	30	0.057	0.005	0.005	0.7	31.3	11.4	26.2	1500.
S 1	5	31	45	0.056	0.008	0.009	0.7	39.2	10.7	26.3	1550.
S 1	5	32	0	0.060	0.007	0.007	0.7	27.9	10.4	26.6	1600.
S 1	5	32	15	0.064	0.005	0.007	0.6	27.0	11.0	26.1	1650.
S 1	5	32	30	0.061	0.004	0.006	0.6	31.6	12.1	26.1	1700.
S 1	5	32	45	0.062	0.001	0.005	0.7	25.7	13.2	26.1	1750.
S 1	5	33	0	0.068	0.002	0.005	0.7	27.5	13.4	26.0	1800.
S 1	5	33	15	0.072	0.006	0.006	0.9	26.9	12.3	26.0	1850.
S 1	5	33	30	0.066	0.003	0.003	0.8	27.9	11.8	25.9	1900.
S 1	5	33	45	0.064	0.003	0.003	0.6	28.2	12.5	25.9	1950.
S 1	5	34	0	0.065	0.003	0.003	0.7	31.3	14.0	26.1	2000.
S 1	5	34	15	0.066	0.003	0.003	0.7	25.1	14.8	25.5	2050.
S 1	5	34	30	0.061	0.004	0.004	0.7	27.8	14.9	25.3	2150.
S 1	5	34	45	0.070	0.002	0.003	0.7	25.5	14.7	24.9	2200.
S 1	5	35	0	0.073	0.001	0.003	0.7	27.4	14.5	25.3	2300.
S 1	5	35	15	0.070	0.002	0.005	0.7	28.4	14.0	25.2	2350.
S 1	5	35	30	0.069	0.002	0.003	0.7	28.6	13.0	26.0	2450.
S 1	5	35	45	0.071	0.005	0.006	0.7	27.5	11.4	24.7	2500.
S 1	5	36	0	0.071	0.004	0.004	0.8	26.8	10.6	24.7	2600.
S 1	5	36	15	0.084	0.003	0.003	0.7	27.5	10.8	24.4	2650.
S 1	5	36	30	0.083	0.002	0.002	0.7	26.4	11.5	24.2	2700.
S 1	5	36	45	0.082	0.003	0.003	0.6	28.0	12.3	24.0	2800.
S 1	5	37	0	0.080	0.006	0.006	0.8	28.1	12.7	24.8	2850.
S 1	5	37	15	0.085	0.003	0.008	0.7	27.9	13.7	23.8	2950.
S 1	5	37	30	0.080	0.004	0.005	0.7	28.2	14.0	23.9	3000.
S 1	5	37	45	0.078	0.002	0.002	0.6	30.6	13.5	23.4	3050.
S 1	5	38	0	0.080	0.002	0.004	0.7	26.0	13.0	23.3	3150.
S 1	5	38	15	0.077	0.003	0.004	0.7	31.7	11.7	23.1	3200.
S 1	5	38	30	0.061	0.002	0.002	0.7	26.4	8.6	22.8	3300.
S 1	5	38	45	0.067	0.003	0.003	0.9	33.2	5.7	23.0	3350.
S 1	5	39	0	0.074	0.003	0.007	0.8	32.1	7.6	22.6	3450.
S 1	5	39	15	0.074	0.002	0.010	0.8	30.1	10.1	22.4	3500.
S 1	5	39	30	0.072	0.003	0.006	0.7	31.3	12.1	22.1	3600.
S 1	5	39	45	0.067	0.002	0.005	0.7	39.8	12.1	22.2	3650.
S 1	5	40	0	0.066	0.005	0.005	0.8	26.0	12.2	22.4	3700.
S 1	5	40	15	0.068	0.005	0.005	0.6	27.7	11.7	21.7	3800.
S 1	5	40	30	0.055	0.004	0.004	0.7	31.2	11.4	21.4	3850.
S 1	5	40	45	0.055	0.003	0.003	0.6	32.0	10.5	21.6	3950.
S 1	5	41	0	0.054	0.003	0.004	0.7	33.5	10.1	21.2	4000.
S 1	5	41	15	0.055	0.001	0.002	0.8	29.9	10.5	21.5	4100.
S 1	5	41	30	0.056	0.0	0.004	0.7	27.7	10.5	20.7	4200.
S 1	5	41	45	0.054	0.001	0.002	0.8	31.0	10.3	20.9	4300.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	42	0	0.054	0.0	0.005	0.6	33.0	9.1	19.9	4350.
S 1	5	42	15	0.053	0.006	0.007	0.7	29.2	8.7	20.0	4450.
S 1	5	42	30	0.052	0.002	0.005	0.7	32.1	9.3	20.2	4550.
S 1	5	42	45	0.058	0.004	0.004	0.8	36.2	10.8	20.1	4650.
S 1	5	43	0	0.059	0.004	0.006	0.8	37.5	11.5	19.5	4750.
S 1	5	43	15	0.053	0.003	0.006	0.7	28.4	11.4	19.6	4800.
S 1	5	43	30	0.052	0.006	0.006	0.8	36.3	10.6	19.3	4900.
S 1	5	43	45	0.052	0.005	0.005	0.6	35.8	9.6	19.1	5000.
S 1	5	44	0	0.054	0.003	0.005	0.6	32.4	8.5	18.6	5100.
S 1	5	44	15	0.051	0.004	0.004	0.7	31.7	8.5	18.7	5150.
S 1	5	44	30	0.053	0.002	0.003	0.7	38.4	8.6	19.2	5250.
S 1	5	44	45	0.051	0.0	0.003	0.7	29.4	8.3	18.5	5350.
S 1	5	45	0	0.056	0.003	0.006	0.7	37.7	8.6	18.5	5400.
S 1	5	45	15	0.054	0.001	0.004	0.8	32.3	7.8	18.2	5500.
S 1	5	45	30	0.055	0.003	0.004	0.7	42.1	7.6	18.1	5600.
S 1	5	45	45	0.052	0.001	0.004	0.8	35.5	6.6	18.1	5650.
S 1	5	46	0	0.049	0.004	0.004	0.6	34.5	5.3	18.0	5750.
S 1	5	46	15	0.049	0.003	0.003	0.6	35.1	4.9	17.6	5850.
S 1	5	46	30	0.049	0.002	0.006	0.6	38.8	6.0	17.1	5900.
S 1	5	46	45	0.050	0.0	0.003	0.6	34.6	6.5	17.2	5950.
S 1	5	47	0	0.051	0.0	0.005	0.5	26.8	5.8	17.3	6000.
S 1	5	47	15	0.050	0.003	0.003	0.7	22.6	4.9	16.8	6050.
S 1	5	47	30	0.047	0.002	0.002	0.6	22.6	5.3	16.9	6150.
S 1	5	47	45	0.051	0.003	0.003	0.6	22.7	5.6	16.6	6200.
S 1	5	48	0	0.048	0.003	0.003	0.7	24.3	5.7	16.3	6300.
S 1	5	48	15	0.054	0.002	0.002	0.8	23.4	5.9	16.4	6350.
S 1	5	48	30	0.051	0.003	0.003	0.7	17.3	5.3	16.3	6400.
S 1	5	48	45	0.053	0.007	0.007	0.8	13.6	4.9	16.0	6450.
S 1	5	49	0	0.050	0.003	0.003	0.7	11.6	5.3	15.6	6550.
S 1	5	49	15	0.050	0.003	0.006	0.5	13.9	4.9	15.8	6600.
S 1	5	49	30	0.049	0.005	0.005	0.8	14.6	4.8	15.2	6700.
S 1	5	49	45	0.042	0.004	0.004	0.6	18.3	4.3	15.3	6750.
S 1	5	50	0	0.048	0.001	0.002	0.6	14.1	4.7	15.0	6800.
S 1	5	50	15	0.050	0.001	0.003	0.7	14.1	5.0	15.0	6900.
S 1	5	50	30	0.051	0.002	0.004	0.7	7.6	4.9	14.9	6950.
S 1	5	50	45	0.048	0.003	0.005	0.6	11.8	5.5	14.7	7000.
S 1	5	51	0	0.053	0.002	0.002	0.7	18.5	6.1	14.5	7100.
S 1	5	51	15	0.050	0.001	0.001	0.7	17.2	5.8	14.3	7150.
S 1	5	51	30	0.057	0.003	0.003	0.7	5.2	4.4	14.0	7250.
S 1	5	51	45	0.053	0.004	0.004	0.5	8.6	2.0	14.2	7350.
S 1	5	52	0	0.053	0.003	0.003	0.5	8.5	0.0	14.3	7400.
S 1	5	52	15	0.045	0.002	0.002	0.6	13.0	-1.4	13.6	7500.
S 1	5	52	30	0.046	0.004	0.004	0.3	10.5	-1.6	14.0	7600.
S 1	5	52	45	0.048	0.004	0.004	0.4	6.4	-1.4	13.7	7650.
S 1	5	53	0	0.051	0.003	0.003	0.5	14.6	-2.1	14.5	7750.
S 1	5	53	15	0.042	0.004	0.004	0.5	5.4	-3.8	13.6	7850.
S 1	5	53	30	0.041	0.002	0.002	0.4	9.3	-4.2	13.6	7900.
S 1	5	53	45	0.043	0.003	0.003	0.4	4.2	-4.2	13.0	8000.
S 1	5	54	0	0.048	0.002	0.002	0.5	12.5	-3.7	13.0	8050.
S 1	5	54	15	0.050	0.002	0.002	0.5	4.2	-3.5	13.2	8150.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	5	54	30	0.051	0.002	0.002	0.5	5.3	-3.0	13.3	8200.
S	1	5	54	45	0.059	0.004	0.004	0.6	8.5	-3.4	13.2	8250.
S	1	5	55	0	0.056	0.002	0.002	0.7	8.2	-3.5	12.9	8300.
S	1	5	55	15	0.054	0.003	0.003	0.6	4.0	-3.3	12.9	8400.
S	1	5	55	30	0.052	0.003	0.003	0.6	2.7	-3.2	12.1	8450.
S	1	5	55	45	0.050	0.005	0.005	0.5	6.9	-2.8	12.8	8500.
S	1	5	56	0	0.056	0.002	0.002	0.4	9.8	-2.5	12.6	8600.
S	1	5	56	15	0.053	0.003	0.003	0.6	2.9	-3.1	13.1	8650.
S	1	5	56	30	0.056	0.001	0.002	0.5	3.3	-4.6	12.1	8700.
S	1	5	56	45	0.051	0.0	0.001	0.4	1.6	-6.1	12.1	8750.
S	1	5	57	0	0.047	0.002	0.002	0.6	1.3	-7.5	12.2	8850.
S	1	5	57	15	0.047	0.003	0.003	0.3	0.6	-9.4	11.9	8900.
S	1	5	57	30	0.046	0.003	0.003	0.7	2.0	-11.2	12.0	8950.
S	1	5	57	45	0.048	0.002	0.003	0.5	1.8	-12.4	12.2	9000.
S	1	5	58	0	0.044	0.003	0.003	0.5	3.1	-11.7	11.9	9100.
S	1	5	58	15	0.044	0.001	0.004	0.6	0.3	-12.6	11.8	9150.
S	1	5	58	30	0.045	0.002	0.002	0.5	1.2	-12.3	12.2	9250.
S	1	5	58	45	0.047	0.002	0.002	0.5	0.6	-12.0	11.1	9300.
S	1	5	59	0	0.048	0.002	0.002	0.5	0.7	-11.4	11.6	9350.
S	1	5	59	15	0.050	0.004	0.004	0.5	0.3	-10.0	11.8	9400.
S	1	5	59	30	0.057	0.002	0.002	0.7	0.2	-7.4	10.7	9500.
S	1	5	59	45	0.057	0.003	0.003	0.5	1.2	-5.9	11.1	9550.
S	1	6	0	0	0.059	0.003	0.003	0.5	0.5	-4.9	11.7	9600.
S	1	6	0	15	0.062	0.003	0.003	0.7	1.5	-5.2	11.2	9700.
S	1	6	0	30	0.061	0.004	0.004	0.5	0.6	-4.9	11.8	9750.
S	1	6	0	45	0.063	0.003	0.003	0.5	0.8	-5.3	11.1	9800.
S	1	6	1	0	0.059	0.002	0.002	0.6	0.9	-5.3	10.9	9900.
S	1	6	1	15	0.062	0.003	0.003	0.4	0.8	-8.2	11.2	9950.
S	1	6	1	30	0.060	0.003	0.003	0.6	9.3	-2.3	10.3	10000.
	1	6	11	0	0.061	0.003	0.004	0.8	26.9	13.7	21.5	2620.
	1	6	11	15	0.066	0.002	0.005	0.8	22.5	13.4	21.4	2660.
	1	6	11	30	0.074	0.005	0.005	0.8	23.4	14.1	22.0	2630.
	1	6	11	45	0.073	0.003	0.003	0.8	20.7	13.9	21.8	2680.
	1	6	12	0	0.076	0.004	0.006	1.0	21.4	12.5	22.4	2680.
	1	6	12	15	0.073	0.007	0.007	0.7	24.7	11.8	22.8	2700.
	1	6	12	30	0.075	0.003	0.007	0.7	23.1	12.3	22.7	2690.
	1	6	12	45	0.073	0.005	0.009	0.8	24.8	13.5	22.9	2710.
	1	6	13	0	0.069	0.001	0.007	0.9	19.3	13.2	22.9	2680.
	1	6	13	15	0.067	0.004	0.007	0.7	22.4	11.8	23.9	2730.
	1	6	13	30	0.066	0.001	0.005	0.8	21.5	11.1	23.7	2720.
	1	6	13	45	0.074	0.003	0.003	0.9	22.6	12.1	23.9	2720.
	1	6	14	0	0.065	0.002	0.002	0.8	23.3	14.0	23.5	2700.
	1	6	14	15	0.061	0.005	0.005	0.7	21.5	15.0	23.8	2690.
	1	6	14	30	0.059	0.004	0.004	0.8	22.3	14.8	23.7	2710.
	1	6	14	45	0.062	0.005	0.005	0.8	18.6	14.0	24.2	2720.
	1	6	15	0	0.058	0.003	0.003	0.8	24.1	13.0	24.0	2730.
	1	6	15	15	0.054	0.003	0.003	0.8	20.4	13.1	24.1	2730.
	1	6	15	30	0.060	0.0	0.003	0.8	21.0	13.0	24.2	2720.
	1	6	15	45	0.069	0.001	0.002	0.7	18.1	13.5	24.2	2710.
	1	6	16	0	0.072	0.004	0.005	0.8	22.2	13.6	24.1	2720.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6	16	15	0.070	0.0	0.003	0.7	22.1	14.2	24.1	2720.
1	6	16	30	0.070	0.002	0.005	0.6	20.7	14.8	25.2	2750.
1	6	16	45	0.068	0.001	0.005	0.7	17.4	15.7	24.2	2750.
1	6	17	0	0.069	0.002	0.002	0.8	19.6	16.3	24.5	2730.
1	6	17	15	0.064	0.002	0.003	0.7	20.4	15.5	24.2	2720.
1	6	17	30	0.064	0.002	0.002	0.6	21.9	14.2	23.9	2780.
1	6	17	45	0.064	0.003	0.003	0.7	20.2	12.7	24.1	2740.
1	6	18	0	0.064	0.003	0.005	0.7	21.5	12.3	24.1	2720.
1	6	18	15	0.062	0.0	0.003	0.7	21.0	12.4	24.8	2730.
1	6	18	30	0.065	0.0	0.004	0.6	22.7	13.1	24.2	2740.
1	6	18	45	0.065	0.0	0.005	0.7	18.2	12.9	24.1	2700.
1	6	19	0	0.064	0.0	0.002	0.7	21.1	12.8	24.3	2740.
1	6	19	15	0.066	0.001	0.004	0.8	20.0	12.3	24.7	2740.
1	6	19	30	0.061	0.003	0.004	0.5	19.2	12.1	24.7	2710.
1	6	19	45	0.060	0.005	0.007	0.8	23.6	12.8	24.6	2730.
1	6	20	0	0.057	0.007	0.007	0.7	21.5	13.1	24.6	2760.
1	6	20	15	0.068	0.003	0.003	0.7	20.5	13.8	24.6	2740.
1	6	20	30	0.065	0.003	0.003	0.7	20.5	13.5	23.9	2750.
1	6	20	45	0.063	0.004	0.004	0.7	20.8	12.5	24.2	2760.
1	6	21	0	0.062	0.005	0.005	0.6	20.4	12.1	24.3	2740.
1	6	21	15	0.062	0.003	0.003	0.6	22.2	12.8	24.2	2740.
1	6	21	30	0.063	0.004	0.004	0.7	24.8	12.9	24.1	2730.
1	6	21	45	0.063	0.001	0.004	0.5	20.6	13.4	24.9	2750.
1	6	22	0	0.062	0.003	0.003	0.6	22.6	13.5	24.3	2700.
1	6	22	15	0.064	0.003	0.004	0.7	19.4	13.3	24.3	2740.
1	6	22	30	0.057	0.005	0.003	0.7	17.2	13.7	24.6	2730.
1	6	22	45	0.061	0.003	0.003	0.7	20.7	13.2	24.7	2750.
1	6	23	0	0.066	0.004	0.004	0.8	18.4	12.1	24.3	2770.
1	6	23	15	0.063	0.003	0.005	0.8	19.3	12.2	24.6	2750.
1	6	23	30	0.059	0.002	0.002	0.7	21.5	13.6	24.6	2710.
1	6	23	45	0.059	0.006	0.008	0.7	20.6	14.5	26.2	2720.
1	6	24	0	0.060	0.005	0.005	0.7	23.2	14.4	24.7	2790.
1	6	24	15	0.058	0.002	0.002	0.8	18.8	13.4	24.4	2720.
1	6	24	30	0.058	0.005	0.005	0.6	18.3	11.7	24.4	2740.
1	6	24	45	0.062	0.007	0.008	0.6	20.2	10.8	24.3	2710.
1	6	25	0	0.062	0.003	0.003	0.6	22.5	10.7	24.7	2790.
1	6	25	15	0.062	0.002	0.002	0.6	19.4	11.7	25.2	2750.
1	6	25	30	0.067	0.003	0.003	0.8	21.1	13.4	24.1	2720.
1	6	25	45	0.062	0.001	0.002	0.6	18.3	14.1	24.4	2740.
1	6	26	30	0.062	0.002	0.002	0.7	22.7	13.8	24.7	2700.
1	6	26	45	0.064	0.004	0.005	0.8	19.3	12.9	25.0	2770.
2	6	27	0	0.062	0.001	0.005	0.9	17.3	12.7	24.3	2730.
2	6	27	15	0.061	0.001	0.006	0.8	22.5	12.1	24.1	2760.
2	6	27	30	0.062	0.004	0.004	0.9	20.7	12.4	24.8	2730.
2	6	27	45	0.062	0.005	0.005	0.8	15.1	13.3	24.9	2750.
2	6	28	0	0.063	0.002	0.002	0.8	19.4	13.5	24.7	2740.
2	6	28	15	0.059	0.003	0.003	0.9	18.2	13.0	24.2	2720.
2	6	28	30	0.061	0.004	0.005	0.8	21.4	13.6	24.2	2720.
2	6	28	45	0.056	0.002	0.002	0.7	19.5	14.2	24.3	2760.
2	6	29	0	0.055	0.001	0.002	0.5	19.5	14.1	24.6	2740.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
2	6	29	15	0.058	0.002	0.002	0.6	19.1	13.5	23.9	2720.
2	6	29	30	0.057	0.003	0.006	0.7	22.5	12.5	24.2	2760.
2	6	29	45	0.057	0.003	0.004	0.7	18.2	12.6	24.2	2720.
2	6	30	0	0.061	0.0	0.002	0.6	19.4	12.5	24.3	2720.
2	6	30	15	0.057	0.001	0.002	0.6	18.8	13.2	24.9	2730.
2	6	30	30	0.058	0.0	0.004	0.6	15.1	13.1	24.8	2760.
2	6	30	45	0.059	0.0	0.002	0.8	22.6	12.5	24.2	2740.
3	6	31	0	0.060	0.0	0.004	0.7	20.6	12.9	24.2	2740.
3	6	31	15	0.061	0.0	0.004	0.6	21.5	12.8	24.6	2850.
3	6	31	30	0.060	0.0	0.003	0.7	14.1	12.5	24.6	2770.
3	6	31	45	0.057	0.001	0.005	0.6	21.6	12.9	24.6	2760.
3	6	32	0	0.056	0.004	0.004	0.7	21.6	12.9	24.9	2760.
3	6	32	15	0.055	0.002	0.002	0.6	14.2	11.7	24.1	2720.
3	6	32	30	0.055	0.0	0.004	0.7	21.6	10.9	24.7	2730.
3	6	32	45	0.055	0.002	0.003	0.7	18.8	10.9	24.4	2720.
3	6	33	0	0.056	0.0	0.004	0.7	17.2	11.4	24.7	2760.
3	6	33	15	0.055	0.0	0.006	0.6	15.2	11.0	24.6	2750.
3	6	33	30	0.056	0.0	0.002	0.5	19.7	11.5	23.9	2770.
3	6	33	45	0.053	0.002	0.002	0.6	18.1	12.9	25.1	2770.
3	6	34	0	0.058	0.0	0.002	0.6	17.2	13.6	24.2	2720.
3	6	34	15	0.053	0.003	0.003	0.6	19.5	13.1	24.0	2750.
3	6	34	30	0.055	0.004	0.005	0.8	18.4	12.5	24.1	2760.
3	6	34	45	0.056	0.004	0.004	0.7	16.0	13.3	25.0	2750.
3	6	35	0	0.061	0.006	0.006	0.7	12.1	14.0	24.8	2780.
3	6	35	15	0.055	0.005	0.005	0.7	18.2	14.3	24.4	2740.
3	6	35	30	0.056	0.005	0.006	0.7	15.2	14.1	24.6	2750.
3	6	35	45	0.054	0.002	0.002	0.6	15.2	13.2	24.6	2720.
3	6	36	0	0.060	0.002	0.004	0.7	19.5	11.6	25.2	2670.
3	6	36	15	0.058	0.003	0.004	0.8	15.1	11.0	25.2	2650.
3	6	36	30	0.062	0.0	0.003	0.6	17.5	11.3	24.6	2720.
3	6	36	45	0.060	0.0	0.003	0.6	19.4	12.3	24.6	2660.
3	6	37	0	0.061	0.002	0.002	0.6	18.0	12.5	24.5	2660.
3	6	37	15	0.058	0.001	0.002	0.6	20.2	12.9	24.7	2690.
3	6	37	30	0.067	0.0	0.005	0.7	16.1	12.6	25.0	2690.
3	6	37	45	0.060	0.003	0.004	0.6	21.4	13.0	24.7	2660.
3	6	38	0	0.065	0.002	0.002	0.7	20.1	12.7	24.6	2710.
3	6	38	15	0.063	0.002	0.002	0.8	20.9	12.7	24.9	2670.
3	6	38	30	0.064	0.001	0.003	0.7	15.9	12.0	24.8	2670.
3	6	38	45	0.065	0.0	0.002	0.8	19.5	12.1	24.6	2670.
3	6	39	0	0.065	0.002	0.002	0.7	18.2	13.2	25.0	2700.
3	6	39	15	0.066	0.0	0.004	0.7	20.7	14.4	24.7	2660.
3	6	39	30	0.067	0.003	0.003	0.8	17.4	14.6	24.1	2660.
3	6	39	45	0.068	0.002	0.002	0.7	19.2	14.0	25.6	2690.
3	6	40	0	0.065	0.002	0.002	0.8	16.6	13.4	25.0	2690.
3	6	40	15	0.065	0.002	0.002	0.7	10.7	14.0	24.1	2680.
3	6	40	30	0.065	0.004	0.005	0.7	18.9	14.1	24.6	2690.
3	6	40	45	0.070	0.003	0.003	0.9	18.5	13.4	25.2	2660.
3	6	41	0	0.069	0.002	0.005	0.7	17.3	12.9	24.6	2690.
3	6	41	15	0.066	0.0	0.005	0.7	16.0	14.1	24.6	2660.
3	6	41	30	0.067	0.0	0.002	0.6	20.1	15.0	24.5	2720.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	6	41	45	0.069	0.004	0.006	0.7	19.5	15.2	24.6	2690.
3	6	42	0	0.071	0.004	0.006	0.7	18.3	14.2	24.6	2720.
3	6	42	15	0.070	0.001	0.002	0.7	17.5	12.3	24.7	2690.
3	6	42	30	0.067	0.002	0.002	0.8	13.8	11.5	24.9	2650.
3	6	42	45	0.066	0.006	0.006	0.7	16.5	12.2	24.8	2690.
3	6	43	0	0.068	0.004	0.004	0.8	18.4	13.6	25.2	2680.
3	6	43	15	0.069	0.001	0.002	0.6	13.1	13.6	24.1	2670.
3	6	43	30	0.069	0.003	0.003	0.8	17.3	12.2	24.8	2660.
3	6	43	45	0.065	0.004	0.004	0.8	17.4	11.5	24.7	2670.
3	6	44	0	0.067	0.002	0.002	0.7	18.7	11.8	25.2	2660.
3	6	44	15	0.070	0.003	0.003	0.8	18.1	12.8	24.6	2650.
3	6	44	30	0.068	0.001	0.006	0.7	18.2	12.8	24.8	2690.
3	6	44	45	0.065	0.004	0.006	0.7	13.9	12.9	24.8	2670.
3	6	45	0	0.068	0.0	0.002	0.8	20.9	12.3	24.7	2660.
3	6	45	15	0.067	0.0	0.003	0.7	15.9	12.6	24.8	2700.
3	6	45	30	0.066	0.002	0.006	0.8	15.6	14.0	24.7	2660.
3	6	45	45	0.074	0.003	0.006	0.8	15.9	15.5	25.3	2700.
3	6	46	0	0.072	0.004	0.004	0.7	19.2	16.0	24.8	2700.
3	6	46	15	0.068	0.001	0.002	0.8	18.2	15.3	24.6	2670.
3	6	46	30	0.074	0.002	0.003	0.8	19.6	12.9	25.0	2690.
3	6	46	45	0.075	0.002	0.002	0.7	16.9	11.2	24.6	2650.
3	6	47	0	0.066	0.0	0.005	0.8	17.4	10.9	24.5	2680.
3	6	47	15	0.064	0.002	0.003	0.6	19.3	12.0	24.3	2690.
4	6	47	30	0.070	0.002	0.002	0.7	18.3	13.0	24.4	2700.
4	6	47	45	0.061	0.002	0.002	0.8	23.5	12.5	24.7	2650.
4	6	48	0	0.062	0.0	0.004	0.8	24.8	11.8	24.6	2670.
4	6	48	15	0.055	0.005	0.007	0.8	20.5	11.2	25.1	2650.
4	6	48	30	0.057	0.0	0.006	0.8	18.3	10.9	24.7	2710.
4	6	48	45	0.054	0.003	0.003	0.8	18.2	10.6	24.8	2670.
4	6	49	0	0.049	0.001	0.002	0.9	17.1	10.4	24.8	2690.
4	6	49	15	0.050	0.001	0.004	0.6	18.5	10.2	24.9	2650.
4	6	49	30	0.047	0.0	0.006	0.7	19.2	10.1	25.1	2680.
5	6	49	45	0.050	0.004	0.004	0.6	16.5	10.5	25.1	2700.
5	6	50	0	0.055	0.003	0.003	0.6	16.1	11.4	25.2	2660.
5	6	50	15	0.060	0.001	0.002	0.8	22.5	12.3	24.5	2650.
5	6	50	30	0.059	0.002	0.006	0.9	21.4	11.9	24.7	2680.
5	6	50	45	0.060	0.0	0.006	0.7	19.7	11.4	24.9	2650.
5	6	51	0	0.056	0.002	0.003	0.8	22.4	11.3	24.5	2650.
5	6	51	15	0.064	0.004	0.004	0.8	18.5	12.6	24.7	2590.
5	6	51	30	0.060	0.002	0.005	0.7	74.5	14.7	24.9	2610.
5	6	51	45	0.059	0.0	0.003	0.8	16.1	15.8	24.7	2700.
5	6	52	0	0.058	0.004	0.005	0.7	18.1	15.9	24.7	2710.
5	6	52	15	0.075	0.007	0.008	0.7	17.6	16.1	24.7	2660.
5	6	52	30	0.075	0.007	0.008	0.7	17.7	17.6	24.7	2670.
5	6	52	45	0.077	0.004	0.006	0.6	16.1	15.3	24.7	2690.
5	6	53	0	0.074	0.002	0.006	0.7	17.4	13.9	24.8	2690.
5	6	53	15	0.072	0.0	0.009	0.8	18.2	14.0	24.4	2640.
5	6	53	30	0.067	0.0	0.004	0.8	18.3	16.0	24.7	2700.
5	6	53	45	0.074	0.0	0.002	0.6	20.0	18.2	25.2	2660.
5	6	54	0	0.067	0.005	0.005	0.8	16.5	19.8	25.0	2720.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	54	15	0.065	0.008	0.008	0.7	18.1	16.8	24.4	2700.
5	6	54	30	0.071	0.004	0.007	0.6	18.6	13.5	25.4	2720.
5	6	54	45	0.073	0.0	0.004	0.6	19.3	12.1	24.9	2700.
5	6	55	0	0.069	0.0	0.002	0.6	16.1	12.3	24.7	2660.
5	6	55	15	0.073	0.001	0.002	0.7	14.3	11.5	24.6	2720.
5	6	55	30	0.074	0.0	0.003	0.6	18.4	10.8	24.6	2680.
5	6	55	45	0.069	0.0	0.004	0.6	17.3	10.5	24.7	2710.
5	6	56	0	0.073	0.002	0.002	0.7	17.6	10.5	24.8	2660.
5	6	56	15	0.068	0.007	0.007	0.7	16.1	10.4	24.7	2690.
5	6	56	30	0.077	0.002	0.002	0.6	18.8	10.5	24.6	2720.
5	6	56	45	0.065	0.0	0.005	0.7	15.5	10.6	24.3	2680.
5	6	57	0	0.068	0.006	0.011	0.6	19.9	10.9	24.9	2690.
5	6	57	15	0.071	0.006	0.015	0.5	18.0	11.5	25.2	2650.
5	6	57	30	0.067	0.001	0.002	0.7	17.3	12.1	24.7	2700.
5	6	57	45	0.067	0.0	0.003	0.6	19.6	11.4	24.8	2720.
5	6	58	0	0.061	0.002	0.004	0.6	17.9	10.9	27.1	2700.
5	6	58	15	0.071	0.001	0.003	0.7	21.6	11.0	24.8	2690.
5	6	58	30	0.066	0.003	0.005	0.7	20.3	11.3	24.6	2700.
5	6	58	45	0.068	0.002	0.002	0.7	20.4	11.1	24.7	2660.
5	6	59	0	0.066	0.002	0.002	0.8	18.1	11.2	24.8	2720.
5	6	59	15	0.063	0.002	0.002	0.6	19.6	12.1	24.2	2710.
5	6	59	30	0.066	0.005	0.005	0.6	15.1	13.4	24.7	2700.
5	6	59	45	0.063	0.003	0.003	0.6	20.3	13.4	24.6	2690.
5	7	0	0	0.061	0.004	0.004	0.6	19.3	11.9	24.9	2720.
5	7	0	15	0.057	0.002	0.002	0.5	14.4	10.9	24.7	2690.
5	7	0	30	0.067	0.003	0.003	0.5	19.4	10.4	24.5	2720.
5	7	0	45	0.059	0.006	0.006	0.5	22.0	10.2	24.6	2690.
5	7	1	0	0.060	0.005	0.005	0.5	16.1	10.0	25.0	2700.
5	7	1	15	0.057	0.003	0.003	0.5	18.2	10.1	25.0	2710.
5	7	1	30	0.055	0.002	0.002	0.5	15.3	10.8	25.0	2720.
5	7	1	45	0.053	0.004	0.004	0.6	18.5	12.4	24.5	2700.
5	7	2	0	0.054	0.003	0.003	0.6	19.5	13.6	25.2	2720.
5	7	2	15	0.053	0.001	0.003	0.5	21.5	14.3	24.9	2720.
5	7	2	30	0.051	0.003	0.009	0.5	16.3	14.5	24.7	2690.
5	7	2	45	0.051	0.001	0.003	0.5	18.6	14.1	24.6	2700.
5	7	3	0	0.052	0.002	0.005	0.6	14.3	13.0	25.1	2700.
5	7	3	15	0.055	0.0	0.004	0.5	17.3	11.2	25.1	2700.
5	7	3	30	0.054	0.0	0.003	0.7	20.2	10.1	24.6	2720.
5	7	3	45	0.054	0.0	0.002	0.6	11.8	9.8	25.1	2720.
5	7	4	0	0.053	0.0	0.002	0.5	14.2	10.1	24.7	2700.
5	7	4	15	0.050	0.0	0.011	0.4	13.8	10.8	25.2	2650.
5	7	4	30	0.051	0.0	0.008	0.5	12.7	12.0	24.6	2690.
5	7	4	45	0.053	0.005	0.005	0.5	16.1	12.4	25.0	2700.
5	7	5	0	0.054	0.006	0.006	0.4	22.5	13.2	24.9	2730.
6	7	5	15	0.057	0.001	0.005	0.5	20.2	13.1	25.0	2720.
6	7	5	30	0.066	0.001	0.002	0.4	11.8	12.7	25.0	2700.
6	7	5	45	0.058	0.006	0.020	0.5	11.6	14.2	25.0	2700.
6	7	6	0	0.057	0.002	0.002	0.5	17.7	16.2	27.9	2760.
6	7	6	15	0.059	0.002	0.002	0.4	13.8	16.9	24.9	2720.
6	7	6	30	0.053	0.002	0.002	0.5	18.8	13.6	25.3	2720.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
6	7	6	45	0.056	0.002	0.006	0.4	18.8	11.2	24.6	2730.
6	7	7	0	0.053	0.004	0.006	0.6	12.9	11.1	24.6	2710.
6	7	7	15	0.060	0.002	0.002	0.6	16.9	12.8	24.6	2720.
6	7	7	30	0.059	0.005	0.005	0.5	19.4	13.8	24.5	2690.
6	7	7	45	0.050	0.005	0.005	0.5	16.5	13.7	25.1	2720.
6	7	8	0	0.054	0.0	0.008	0.6	18.3	12.7	24.8	2730.
6	7	8	15	0.053	0.0	0.007	0.5	19.4	11.0	24.5	2710.
7	7	8	30	0.056	0.001	0.005	0.7	20.3	10.3	25.0	2740.
7	7	8	45	0.073	0.0	0.005	0.5	16.3	10.6	25.2	2720.
7	7	9	0	0.053	0.0	0.003	0.5	16.1	11.7	24.7	2710.
7	7	9	15	0.054	0.002	0.002	0.6	19.5	12.1	26.0	2740.
7	7	9	30	0.058	0.0	0.004	0.6	17.4	12.9	25.0	2720.
7	7	9	45	0.059	0.0	0.004	0.6	15.4	12.5	24.8	2730.
7	7	10	0	0.060	0.0	0.002	0.7	16.9	11.1	25.3	2720.
7	7	10	15	0.056	0.001	0.003	0.5	19.2	10.1	25.1	2700.
7	7	10	30	0.055	0.0	0.002	0.5	19.4	10.1	25.2	2720.
7	7	10	45	0.056	0.001	0.004	0.6	20.0	10.7	24.7	2690.
7	7	11	0	0.056	0.003	0.005	0.6	18.8	11.6	24.9	2710.
7	7	11	15	0.056	0.002	0.002	0.6	17.7	11.5	24.4	2720.
7	7	11	30	0.059	0.0	0.002	0.6	14.2	11.4	25.2	2740.
7	7	11	45	0.053	0.003	0.003	0.6	13.8	11.1	24.5	2710.
7	7	12	0	0.062	0.006	0.006	0.5	13.3	10.2	25.0	2680.
7	7	12	15	0.060	0.003	0.003	0.7	16.1	8.2	25.0	2740.
7	7	12	30	0.065	0.004	0.005	0.5	18.8	7.2	24.8	2710.
7	7	12	45	0.063	0.0	0.006	0.7	15.1	10.6	25.2	2690.
7	7	13	0	0.061	0.002	0.002	0.6	13.3	12.7	24.9	2690.
7	7	13	15	0.062	0.0	0.005	0.7	20.5	13.1	24.6	2720.
7	7	13	30	0.067	0.001	0.004	0.6	16.0	13.5	24.9	2730.
7	7	13	45	0.068	0.0	0.005	0.6	16.0	13.2	24.8	2710.
7	7	14	0	0.069	0.003	0.004	0.7	21.5	12.0	24.6	2700.
7	7	14	15	0.069	0.0	0.003	0.7	17.6	11.6	24.6	2720.
7	7	14	30	0.067	0.002	0.002	0.8	15.8	12.1	24.9	2710.
7	7	14	45	0.067	0.002	0.005	0.8	17.5	13.1	24.3	2700.
7	7	15	0	0.071	0.001	0.004	0.7	20.0	13.2	24.6	2690.
7	7	15	15	0.068	0.0	0.005	0.7	18.2	14.1	24.7	2720.
7	7	15	30	0.071	0.0	0.008	0.7	11.9	14.3	24.6	2710.
7	7	15	45	0.068	0.0	0.004	0.6	19.9	13.4	24.7	2690.
7	7	16	0	0.068	0.0	0.006	0.6	16.4	11.9	24.7	2690.
7	7	16	15	0.078	0.0	0.002	0.6	17.3	11.5	24.6	2720.
7	7	16	30	0.085	0.002	0.002	0.8	20.0	11.9	25.2	2700.
7	7	16	45	0.087	0.003	0.003	0.6	21.5	11.2	24.5	2700.
7	7	17	0	0.078	0.002	0.002	0.7	22.2	10.5	24.7	2710.
7	7	17	15	0.071	0.0	0.003	0.6	18.5	10.2	24.9	2720.
7	7	17	30	0.074	0.0	0.006	0.5	18.1	10.7	24.4	2720.
7	7	17	45	0.075	0.0	0.002	0.7	22.7	11.4	24.7	2710.
7	7	18	0	0.073	0.002	0.002	0.5	21.8	12.5	25.1	2680.
7	7	18	15	0.074	0.002	0.003	0.6	12.7	12.8	25.2	2700.
7	7	18	30	0.079	0.0	0.004	0.6	19.9	13.4	27.9	2740.
7	7	18	45	0.073	0.0	0.004	0.6	18.4	13.4	24.6	2690.
7	7	19	0	0.073	0.0	0.002	0.7	15.9	12.9	24.7	2710.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	7	19	15	0.077	0.001	0.002	0.7	20.0	12.6	25.0	2720.
7	7	19	30	0.079	0.0	0.005	0.7	10.7	11.6	24.8	2730.
7	7	19	45	0.074	0.003	0.004	0.8	21.3	11.1	24.6	2720.
7	7	20	0	0.077	0.0	0.003	0.6	18.5	11.3	24.9	2720.
7	7	20	15	0.073	0.003	0.003	0.7	17.2	12.0	24.4	2780.
7	7	20	30	0.080	0.0	0.003	0.8	19.6	12.5	25.1	2720.
7	7	20	45	0.075	0.0	0.003	0.7	20.2	12.1	24.6	2730.
7	7	21	0	0.074	0.0	0.002	0.7	20.3	12.0	24.8	2710.
7	7	21	15	0.061	0.0	0.003	0.8	18.0	12.5	25.2	2690.
7	7	21	30	0.055	0.001	0.003	0.8	20.8	12.5	25.0	2690.
7	7	21	45	0.057	0.003	0.003	0.7	17.4	13.1	24.1	2720.
7	7	22	0	0.062	0.004	0.005	0.7	20.7	13.6	24.4	2720.
7	7	22	15	0.066	0.0	0.007	0.7	18.7	13.1	24.1	2710.
7	7	22	30	0.061	0.0	0.003	0.8	15.4	13.3	24.7	2690.
7	7	22	45	0.063	0.005	0.005	0.8	17.7	13.5	25.2	2730.
7	7	23	0	0.068	0.0	0.006	0.7	23.5	14.7	25.0	2680.
7	7	23	15	0.067	0.0	0.002	0.7	19.8	15.3	24.8	2710.
7	7	23	30	0.065	0.0	0.003	0.8	22.5	15.5	25.1	2740.
7	7	23	45	0.068	0.0	0.003	0.7	23.5	15.1	25.1	2720.
7	7	24	0	0.067	0.0	0.005	0.7	19.4	14.4	25.1	2680.
7	7	24	15	0.066	0.0	0.002	0.8	20.8	13.2	25.1	2680.
7	7	24	30	0.068	0.0	0.005	0.9	12.9	13.0	24.7	2710.
S 2	7	33	0	0.066	0.002	0.003	0.6	22.3	16.9	24.1	2600.
S 2	7	33	15	0.068	0.0	0.006	0.7	11.1	14.3	23.5	2650.
S 2	7	33	30	0.068	0.0	0.008	0.7	17.1	12.0	24.2	2700.
S 2	7	33	45	0.070	0.0	0.002	0.7	19.3	10.4	23.6	2800.
S 2	7	34	0	0.057	0.0	0.006	0.7	10.8	10.3	23.9	2850.
S 2	7	34	15	0.056	0.0	0.011	0.7	11.0	10.6	23.5	2900.
S 2	7	34	30	0.059	0.0	0.006	0.8	15.1	11.3	23.6	2950.
S 2	7	34	45	0.057	0.0	0.007	0.7	17.3	12.4	23.3	3000.
S 2	7	35	0	0.054	0.0	0.006	0.6	13.5	12.3	23.5	3050.
S 2	7	35	15	0.049	0.001	0.005	0.7	13.5	12.0	23.6	3100.
S 2	7	35	30	0.051	0.0	0.003	0.7	18.7	11.0	23.1	3150.
S 2	7	35	45	0.051	0.0	0.003	0.8	23.2	10.9	22.5	3200.
S 2	7	36	0	0.053	0.0	0.002	0.6	8.4	11.5	23.0	3250.
S 2	7	36	15	0.049	0.0	0.004	0.7	15.2	11.4	23.0	3300.
S 2	7	36	30	0.052	0.0	0.003	0.7	11.1	11.8	22.1	3350.
S 2	7	36	45	0.048	0.0	0.006	0.8	8.7	12.3	22.1	3400.
S 2	7	37	0	0.050	0.0	0.004	0.8	10.9	11.9	21.7	3450.
S 2	7	37	15	0.053	0.0	0.002	0.7	6.4	11.7	21.6	3500.
S 2	7	37	30	0.050	0.0	0.002	0.8	8.9	11.0	21.7	3550.
S 2	7	37	45	0.051	0.003	0.003	0.7	9.0	11.0	21.7	3600.
S 2	7	38	0	0.058	0.004	0.008	0.7	10.9	11.4	21.9	3650.
S 2	7	38	15	0.054	0.003	0.003	0.7	14.6	11.0	21.2	3700.
S 2	7	38	30	0.055	0.002	0.004	0.9	7.9	11.1	20.6	3750.
S 2	7	38	45	0.053	0.001	0.002	0.7	16.7	11.5	20.6	3800.
S 2	7	39	0	0.053	0.001	0.005	0.7	8.0	11.6	20.6	3850.
S 2	7	39	15	0.054	0.002	0.005	0.9	2.4	10.3	20.7	3900.
S 2	7	39	30	0.057	0.006	0.006	0.6	4.9	8.4	20.6	3950.
S 2	7	39	45	0.056	0.004	0.009	0.8	7.9	5.6	20.2	4000.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	40	0	0.058	0.004	0.006	0.7	9.2	6.4	20.5	4050.
S 2	7	40	15	0.058	0.0	0.007	0.8	8.1	7.6	19.8	4150.
S 2	7	40	30	0.058	0.0	0.002	0.7	17.3	8.9	19.7	4200.
S 2	7	40	45	0.058	0.0	0.006	0.8	9.0	10.1	19.6	4300.
S 2	7	41	0	0.055	0.0	0.002	0.7	4.5	11.4	20.0	4350.
S 2	7	41	15	0.053	0.0	0.004	0.9	9.1	11.2	19.7	4450.
S 2	7	41	30	0.057	0.0	0.004	0.9	10.3	9.6	19.3	4500.
S 2	7	41	45	0.056	0.0	0.003	0.7	11.8	8.5	19.2	4600.
S 2	7	42	0	0.058	0.001	0.003	0.7	11.7	8.3	19.3	4650.
S 2	7	42	15	0.056	0.0	0.007	0.8	9.3	7.4	19.7	4700.
S 2	7	42	30	0.053	0.0	0.009	0.7	6.9	6.7	18.7	4800.
S 2	7	42	45	0.055	0.004	0.006	0.7	0.8	6.4	18.8	4850.
S 2	7	43	0	0.055	0.001	0.004	0.8	9.5	6.6	18.5	4900.
S 2	7	43	15	0.056	0.0	0.005	0.8	1.2	7.4	18.3	5000.
S 2	7	43	30	0.056	0.0	0.003	0.7	10.0	8.3	18.8	5050.
S 2	7	43	45	0.056	0.0	0.004	0.7	8.4	8.5	17.3	5150.
S 2	7	44	0	0.052	0.001	0.003	0.7	8.1	8.0	17.3	5200.
S 2	7	44	15	0.054	0.0	0.006	0.7	17.0	8.4	17.3	5300.
S 2	7	44	30	0.054	0.0	0.004	0.8	13.3	8.2	17.9	5350.
S 2	7	44	45	0.055	0.002	0.007	0.8	9.7	7.7	17.3	5450.
S 2	7	45	0	0.053	0.001	0.003	0.8	7.1	7.9	17.3	5500.
S 2	7	45	15	0.049	0.0	0.002	0.6	10.9	7.7	17.1	5550.
S 2	7	45	30	0.055	0.0	0.002	0.6	13.2	7.4	16.9	5650.
S 2	7	45	45	0.053	0.0	0.004	0.7	12.6	7.9	16.8	5700.
S 2	7	46	0	0.056	0.0	0.002	0.8	14.1	9.2	16.4	5800.
S 2	7	46	15	0.058	0.002	0.004	0.7	10.6	9.2	16.5	5850.
S 2	7	46	30	0.055	0.0	0.010	0.8	8.7	7.7	16.9	5950.
S 2	7	46	45	0.058	0.001	0.004	0.6	18.0	1.1	16.0	6000.
S 2	7	47	0	0.053	0.0	0.005	0.8	33.7	1.8	16.9	6100.
S 2	7	47	15	0.056	0.0	0.004	0.6	17.5	4.2	16.0	6150.
S 2	7	47	30	0.055	0.002	0.005	0.7	13.8	5.9	16.0	6250.
S 2	7	47	45	0.052	0.0	0.002	0.7	12.5	6.3	15.5	6300.
S 2	7	48	0	0.048	0.002	0.002	0.5	23.7	5.8	15.4	6400.
S 2	7	48	15	0.046	0.0	0.004	0.4	25.6	4.8	15.6	6450.
S 2	7	48	30	0.049	0.004	0.005	0.5	19.0	4.9	14.9	6550.
S 2	7	48	45	0.047	0.0	0.002	0.5	18.1	4.8	14.7	6600.
S 2	7	49	0	0.047	0.0	0.004	0.5	13.3	4.0	15.5	6700.
S 2	7	49	15	0.046	0.0	0.002	0.4	2.2	2.7	14.8	6750.
S 2	7	49	30	0.043	0.0	0.004	0.5	28.7	2.2	14.8	6850.
S 2	7	49	45	0.047	0.0	0.002	0.6	20.0	2.4	14.6	6900.
S 2	7	50	0	0.052	0.002	0.002	0.5	11.5	2.1	14.3	7000.
S 2	7	50	15	0.046	0.002	0.003	0.5	27.7	2.8	14.0	7050.
S 2	7	50	30	******	0.0	0.003	0.5	32.5	3.7	14.5	7100.
S 2	7	50	45	0.047	0.0	0.001	0.4	31.0	4.8	14.3	7150.
S 2	7	51	0	0.048	0.0	0.003	0.6	34.9	3.5	13.7	7250.
S 2	7	51	15	0.056	0.0	0.002	0.6	28.0	2.1	14.1	7300.
S 2	7	51	30	0.054	0.0	0.002	0.5	15.0	1.6	14.5	7400.
S 2	7	51	45	0.056	0.0	0.005	0.5	29.3	0.8	13.1	7450.
S 2	7	52	0	0.054	0.0	0.003	0.6	22.8	0.2	13.6	7500.
S 2	7	52	15	0.049	0.0	0.003	0.4	16.1	0.0	13.6	7600.

TULSA FLIGHT NUMBER 9 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	52	30	0.048	0.0	0.004	0.5	27.3	-1.9	13.1	7650.
S 2	7	52	45	0.047	0.0	0.003	0.6	28.5	-5.5	14.0	7700.
S 2	7	53	0	0.049	0.0	0.001	0.6	36.9	-8.6	13.1	7800.
S 2	7	53	15	0.045	0.0	0.002	0.4	44.2	-7.4	12.9	7850.
S 2	7	53	30	0.040	0.0	0.004	0.5	24.7	-6.7	13.1	7950.
S 2	7	53	45	0.039	0.0	0.004	0.6	24.8	-6.3	13.0	8000.
S 2	7	54	0	0.042	0.003	0.003	0.4	34.9	-6.2	13.1	8050.
S 2	7	54	15	0.041	0.003	0.018	0.4	36.3	-6.7	12.7	8150.
S 2	7	54	30	0.044	0.002	0.007	0.5	34.1	-6.6	12.6	8200.
S 2	7	54	45	0.044	0.003	0.005	0.6	32.3	-5.1	12.1	8250.
S 2	7	55	0	0.048	0.003	0.007	0.5	36.7	-3.7	11.8	8300.
S 2	7	55	15	0.049	0.004	0.004	0.5	62.0	-2.0	12.1	8350.
S 2	7	55	30	0.058	0.002	0.002	0.6	25.9	-1.0	12.1	8450.
S 2	7	55	45	0.057	0.0	0.002	0.5	42.7	-0.7	12.2	8500.
S 2	7	56	0	0.055	0.0	0.003	0.5	42.6	-1.5	12.1	8550.
S 2	7	56	15	0.055	0.0	0.004	0.5	48.5	-3.2	12.0	8650.
S 2	7	56	30	0.059	0.0	0.002	0.6	43.1	-5.5	11.3	8700.
S 2	7	56	45	0.054	0.0	0.002	0.7	54.9	-6.3	12.1	8750.
S 2	7	57	0	0.051	0.0	0.004	0.5	58.0	-8.0	11.7	8850.
S 2	7	57	15	0.051	0.0	0.004	0.5	39.3	-8.8	11.1	8900.
S 2	7	57	30	0.051	0.0	0.003	0.5	48.1	-9.1	11.2	8950.
S 2	7	57	45	0.050	0.0	0.002	0.5	46.7	-8.8	11.2	9000.
S 2	7	58	0	0.053	0.002	0.005	0.5	61.8	-9.4	11.2	9100.
S 2	7	58	15	0.045	0.0	0.002	0.6	32.1	-10.2	11.0	9200.
S 2	7	58	30	0.053	0.0	0.006	0.6	66.5	-9.5	10.7	9300.
S 2	7	58	45	0.058	0.0	0.004	0.6	38.8	-6.0	11.2	9350.
S 2	7	59	0	0.067	0.0	0.005	0.5	53.7	-2.4	10.7	9400.
S 2	7	59	15	0.065	0.0	0.002	0.6	70.7	-1.3	10.8	9500.
S 2	7	59	30	******	0.005	0.008	0.6	33.6	-1.1	11.2	9550.
S 2	7	59	45	0.060	0.0	0.002	0.7	47.0	-2.2	10.8	9650.
S 2	8	0	0	0.068	0.0	0.005	0.6	59.4	-3.0	10.6	9750.
S 2	8	0	15	0.061	0.0	0.002	0.5	61.1	-3.2	10.2	9850.
S 2	8	0	30	0.062	0.0	0.003	0.7	70.8	-2.7	9.9	9950.
S 2	8	0	45	0.063	0.005	0.006	0.6	67.6	-1.4	9.7	10000.

TULSA FLIGHT NUMBER 10 DATE: 9- 2- 1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	24	0	0.064	0.0	0.002	0.8	0.7	13.9	25.7	2580.
1	12	24	15	0.067	0.0	0.0	0.8	0.3	13.7	25.9	2570.
1	12	24	30	0.066	0.0	0.0	0.7	3.2	13.7	25.8	2560.
1	12	24	45	0.070	0.0	0.003	0.8	0.5	13.9	25.8	2580.
1	12	25	0	0.067	0.0	0.0	0.8	1.7	13.7	25.7	2590.
1	12	25	15	0.063	0.0	0.0	0.9	0.9	13.5	25.9	2580.
1	12	25	30	0.061	0.0	0.0	0.7	0.8	13.4	25.9	2680.
1	12	25	45	0.067	0.0	0.007	0.8	0.9	13.5	25.9	2580.
1	12	26	0	0.066	0.0	0.0	0.9	0.4	13.5	25.8	2600.
1	12	26	15	0.071	0.0	0.004	1.0	2.3	13.6	25.9	2560.
1	12	26	30	0.069	0.0	0.002	0.9	1.8	13.7	25.8	2580.
1	12	26	45	0.063	0.0	0.002	1.0	1.6	13.7	25.8	2580.
1	12	27	0	0.079	0.0	0.007	0.9	1.7	13.7	25.8	2580.
1	12	27	15	0.072	0.008	0.004	0.7	1.4	13.7	25.9	2570.
1	12	27	30	0.072	0.0	0.0	0.9	2.4	13.6	25.7	2580.
1	12	27	45	0.070	0.0	0.0	0.8	1.0	13.7	25.9	2580.
1	12	28	0	0.068	0.0	0.0	0.8	1.5	13.7	25.6	2600.
1	12	28	15	0.069	0.0	0.0	0.7	1.1	13.4	25.6	2590.
1	12	28	30	0.065	0.0	0.006	0.7	0.6	13.2	25.8	2600.
1	12	28	45	0.066	0.0	0.0	0.9	0.6	13.3	25.6	2560.
1	12	29	0	0.068	0.0	0.006	0.8	1.1	13.5	25.7	2600.
1	12	29	15	0.065	0.0	0.008	0.8	0.7	13.4	25.7	2580.
1	12	29	30	0.068	0.0	0.013	0.8	0.9	13.4	25.5	2580.
1	12	29	45	0.075	0.0	0.011	0.7	1.0	13.6	25.7	2550.
1	12	30	0	0.072	0.002	0.007	0.8	0.7	13.7	25.6	2560.
1	12	30	15	0.074	0.0	0.0	0.7	0.5	13.8	25.5	2580.
1	12	30	30	0.072	0.0	0.0	0.8	1.2	13.7	25.7	2580.
1	12	30	45	0.072	0.0	0.0	0.8	0.5	13.6	25.6	2560.
1	12	31	0	0.071	0.0	0.0	0.9	0.5	13.6	25.6	2580.
1	12	31	15	0.070	0.0	0.0	0.7	0.5	13.8	25.6	2560.
1	12	31	30	0.073	0.0	0.010	0.9	0.9	14.1	25.4	2590.
1	12	31	45	0.070	0.0	0.015	0.8	1.7	14.3	25.7	2580.
1	12	32	0	0.076	0.0	0.010	0.7	0.9	14.2	25.7	2560.
1	12	32	15	0.071	0.0	0.013	0.9	0.8	13.9	25.7	2570.
1	12	32	30	0.076	0.0	0.005	0.9	1.6	14.1	25.5	2600.
1	12	32	45	0.067	0.0	0.001	0.8	2.8	14.1	25.7	2540.
1	12	33	0	0.075	0.0	0.004	0.7	0.7	13.7	25.7	2560.
1	12	33	15	0.076	0.005	0.016	0.7	1.5	13.3	25.9	2560.
1	12	33	30	0.074	0.0	0.011	0.8	1.0	13.1	25.7	2560.
1	12	33	45	0.072	0.0	0.006	0.9	1.4	13.4	25.9	2540.
1	12	34	0	0.082	0.0	0.008	1.0	1.9	14.2	25.8	2590.
1	12	34	15	0.081	0.0	0.003	0.9	2.2	14.5	25.6	2540.
1	12	34	30	0.080	0.0	0.0	0.9	1.8	14.4	25.9	2590.
1	12	34	45	0.077	0.0	0.0	0.8	1.3	14.2	25.9	2580.
1	12	35	0	0.082	0.0	0.0	0.8	1.0	14.2	25.9	2560.
1	12	35	15	0.084	0.0	0.0	0.8	1.9	14.4	25.7	2570.
1	12	35	30	0.087	0.0	0.004	1.0	2.2	14.4	26.0	2530.
1	12	35	45	0.086	0.0	0.001	1.0	2.5	14.3	26.0	2580.
1	12	36	0	0.091	0.0	0.006	0.8	2.4	14.2	26.1	2570.
1	12	36	15	0.092	0.0	0.006	0.7	1.9	14.0	25.9	2560.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	36	30	0.093	0.0	0.008	0.8	2.2	13.8	26.1	2590.
1	12	36	45	0.098	0.0	0.0	0.8	4.2	13.5	25.9	2570.
1	12	37	0	0.102	0.0	0.004	0.9	9.3	13.1	26.1	2570.
1	12	37	15	0.093	0.0	0.0	0.8	6.2	13.0	26.1	2570.
1	12	37	30	0.104	0.0	0.0	0.8	8.4	13.2	26.1	2610.
1	12	37	45	0.099	0.0	0.003	0.8	4.6	13.5	26.1	2570.
1	12	38	0	0.124	******	0.006	0.9	5.0	13.7	26.1	2570.
1	12	38	15	0.127	0.0	0.008	0.9	5.2	13.7	26.0	2580.
1	12	38	30	0.124	0.0	0.008	0.7	5.1	13.6	26.3	2550.
1	12	38	45	0.125	0.0	0.0	0.9	4.9	13.7	26.3	2590.
1	12	39	0	0.132	0.0	0.010	0.8	5.2	13.6	26.5	2550.
1	12	39	15	0.125	0.0	0.008	0.9	6.5	13.5	26.1	2590.
1	12	39	30	0.129	0.0	0.003	0.7	4.9	13.4	26.3	2570.
1	12	39	45	0.129	0.0	0.002	0.7	5.3	13.3	26.4	2570.
1	12	40	0	0.134	0.0	0.006	0.8	5.8	13.5	26.3	2540.
1	12	40	15	0.132	0.0	0.0	0.9	7.5	13.8	26.5	2550.
1	12	40	30	0.141	0.0	0.006	0.9	8.4	14.0	26.1	2530.
1	12	40	45	0.133	0.002	0.017	1.0	6.5	14.1	26.1	2560.
1	12	41	0	0.126	0.0	0.004	1.0	7.4	13.9	26.3	2570.
1	12	41	15	0.116	0.0	0.005	0.8	7.2	13.6	26.2	2630.
1	12	41	30	0.101	0.0	0.010	0.7	6.1	13.3	26.2	2520.
1	12	41	45	0.101	0.0	0.008	1.0	3.4	13.2	26.4	2590.
1	12	42	0	0.095	0.0	0.011	0.8	4.3	13.0	26.3	2550.
1	12	42	15	0.082	0.0	0.0	0.7	2.6	12.8	26.4	2570.
1	12	42	30	0.087	0.0	0.0	0.8	1.8	12.9	26.5	2510.
1	12	42	45	0.085	0.0	0.0	0.8	1.2	13.3	26.1	2590.
1	12	43	0	0.085	0.0	0.0	0.8	1.4	13.4	26.4	2560.
1	12	43	15	0.079	0.0	0.001	0.6	1.8	13.0	26.4	2550.
1	12	43	30	0.071	0.0	0.007	0.7	1.0	12.8	26.4	2550.
1	12	43	45	0.074	0.0	0.008	0.6	1.1	12.7	26.4	2560.
1	12	44	0	0.074	0.0	0.0	0.6	1.4	12.8	26.4	2550.
1	12	44	15	0.073	0.0	0.0	0.6	2.7	12.7	26.5	2570.
1	12	44	30	0.076	0.0	0.0	0.8	0.6	12.6	26.5	2520.
1	12	44	45	0.068	0.0	0.0	0.8	1.4	12.6	26.6	2530.
1	12	45	0	0.078	0.0	0.0	0.6	1.4	12.9	26.4	2550.
1	12	45	15	0.075	0.0	0.0	0.6	1.2	13.0	26.7	2550.
1	12	45	30	0.070	0.0	0.005	0.8	1.3	12.8	26.7	2520.
1	12	45	45	0.072	0.0	0.004	0.7	1.1	12.6	26.7	2570.
1	12	46	0	0.070	0.0	0.002	0.7	1.2	12.7	26.7	2540.
1	12	46	15	0.077	0.0	0.001	0.8	1.6	12.9	26.7	2610.
1	12	46	30	0.076	0.0	0.0	0.8	1.2	13.0	26.7	2550.
1	12	46	45	0.077	0.0	0.001	0.6	1.3	13.1	26.6	2600.
1	12	47	0	0.081	0.0	0.011	0.8	1.2	13.1	26.8	2560.
1	12	47	15	0.081	0.0	0.003	0.6	2.0	13.1	26.7	2520.
1	12	47	30	0.079	0.0	0.002	0.7	1.5	13.1	26.9	2560.
1	12	47	45	0.085	0.0	0.003	0.7	0.3	13.3	26.8	2580.
1	12	48	0	0.087	0.0	0.0	0.6	2.1	13.3	26.7	2580.
1	12	48	15	0.087	0.0	0.0	0.9	0.6	13.1	26.7	2540.
1	12	48	30	0.082	0.0	0.0	0.6	1.5	13.0	26.7	2540.
1	12	48	45	0.079	0.0	0.0	0.8	1.7	13.0	26.7	2510.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	49	0	0.082	0.0	0.0	0.7	0.9	13.0	26.6	2540.
1	12	49	15	0.082	0.0	0.0	0.7	1.3	13.1	26.7	2550.
1	12	49	30	0.083	0.0	0.0	0.8	1.4	13.3	26.8	2540.
1	12	49	45	0.080	0.0	0.0	0.8	1.5	14.2	26.9	2550.
1	12	50	0	0.086	0.0	0.010	0.8	1.8	15.5	26.8	2540.
1	12	50	15	0.081	0.0	0.012	0.6	1.2	15.1	26.8	2540.
1	12	50	30	0.083	0.0	0.002	0.6	1.2	13.8	26.8	2580.
1	12	50	45	0.084	0.0	0.0	0.7	0.9	13.3	26.9	2530.
1	12	51	0	0.083	0.0	0.0	0.8	1.0	13.3	26.6	2540.
1	12	51	15	0.086	0.0	0.0	0.6	1.2	13.5	26.6	2570.
1	12	51	30	0.085	0.0	0.0	0.7	0.8	13.6	26.9	2580.
1	12	51	45	0.082	0.0	0.0	0.7	1.5	13.5	26.9	2560.
1	12	52	0	0.079	0.0	0.003	0.6	1.3	13.3	26.7	2580.
1	12	52	15	0.081	0.0	0.006	0.7	0.5	13.2	26.8	2560.
1	12	52	30	0.078	0.0	0.005	0.6	1.8	13.2	26.8	2580.
1	12	52	45	0.076	0.0	0.010	0.8	1.5	13.2	26.7	2560.
1	12	53	0	0.080	0.0	0.006	0.6	0.5	13.0	27.0	2550.
1	12	53	15	0.075	0.0	0.007	0.6	0.9	12.7	26.9	2540.
1	12	53	30	0.076	0.0	0.0	0.7	0.6	12.7	26.9	2550.
2	12	53	45	0.074	0.0	0.0	0.7	1.9	12.9	26.8	2550.
2	12	54	0	0.075	0.0	0.009	0.8	1.4	13.0	26.8	2560.
2	12	54	15	0.076	0.0	0.008	0.8	1.3	13.0	27.1	2570.
2	12	54	30	0.072	0.006	0.007	0.7	2.0	12.9	27.0	2570.
2	12	54	45	0.074	0.0	0.005	0.8	0.9	13.6	27.0	2550.
2	12	55	0	0.076	0.0	0.003	0.6	2.3	15.2	27.0	2570.
2	12	55	15	0.076	0.0	0.001	0.6	0.7	16.7	27.0	2550.
2	12	55	30	0.076	0.0	0.002	0.6	1.8	15.2	26.9	2550.
2	12	55	30	0.073	0.0	0.002	0.7	2.2	13.7	27.1	2550.
3	12	55	45	0.077	0.0	0.0	0.7	1.7	13.0	27.0	2580.
3	12	56	0	0.077	0.0	0.0	0.5	1.3	13.0	26.8	2530.
3	12	56	15	0.074	0.0	0.0	0.6	1.0	13.0	27.1	2510.
3	12	56	30	0.076	0.0	0.0	0.7	1.8	13.1	27.0	2580.
3	12	56	45	0.076	0.0	0.001	0.6	1.4	13.0	26.9	2590.
3	12	57	0	0.072	0.0	0.004	0.7	1.4	13.0	26.8	2550.
3	12	57	15	0.072	0.0	0.002	0.7	1.3	13.2	27.0	2570.
3	12	57	30	0.078	0.0	0.006	0.7	2.7	13.3	27.0	2560.
3	12	57	45	0.080	0.003	0.013	0.6	1.7	13.3	26.8	2560.
3	12	58	0	0.079	0.0	0.010	0.6	0.7	13.3	26.9	2570.
3	12	58	15	0.074	0.0	0.007	0.7	1.9	13.4	26.7	2590.
3	12	58	30	0.079	0.0	0.009	0.7	1.7	13.4	26.6	2550.
3	12	58	45	0.083	0.0	0.008	0.7	0.8	13.5	26.9	2610.
3	12	59	0	0.083	0.0	0.015	0.7	0.9	13.7	26.8	2550.
3	12	59	15	0.085	0.0	0.012	0.6	1.5	13.9	26.6	2540.
3	12	59	30	0.087	0.0	0.011	0.6	2.5	13.9	26.6	2580.
3	12	59	45	0.092	0.0	0.005	0.7	0.3	13.7	26.8	2560.
3	13	0	0	0.086	0.0	0.010	0.7	0.9	13.6	26.8	2550.
3	13	0	15	0.089	0.0	0.006	0.9	1.3	13.7	26.6	2520.
3	13	0	30	0.093	0.0	0.0	0.8	1.1	13.7	26.8	2540.
3	13	0	45	0.087	0.0	0.0	0.7	1.1	13.6	26.6	2520.
3	13	1	0	0.085	0.0	0.0	0.7	1.2	13.5	26.7	2500.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	13	1	15	0.085	0.0	0.009	0.8	1.5	13.4	26.6	2560.
3	13	1	30	0.085	0.0	0.006	0.7	1.9	13.4	26.6	2560.
3	13	1	45	0.081	0.0	0.008	0.7	0.6	13.5	26.6	2540.
3	13	2	0	0.083	0.0	0.011	0.8	2.7	13.6	26.5	2560.
3	13	2	15	0.082	0.0	0.008	0.7	0.6	13.7	26.5	2560.
3	13	2	30	0.082	0.0	0.014	0.7	1.2	13.6	26.6	2570.
3	13	2	45	0.076	0.0	0.015	0.6	1.3	13.4	26.6	2560.
3	13	3	0	0.077	0.005	0.014	0.7	0.5	13.3	26.6	2550.
3	13	3	15	0.076	0.0	0.005	0.7	0.6	13.0	26.6	2540.
3	13	3	30	0.074	0.0	0.008	0.7	0.4	12.6	26.8	2560.
3	13	3	45	0.075	0.006	0.008	0.6	0.3	12.4	26.7	2560.
3	13	4	0	0.077	0.0	0.006	0.7	0.6	12.7	26.8	2560.
3	13	4	15	0.073	0.0	0.002	0.7	1.6	13.1	26.6	2560.
3	13	4	30	0.077	0.0	0.001	0.6	1.2	13.3	26.8	2590.
3	13	4	45	0.072	0.0	0.006	0.6	1.1	13.2	26.8	2530.
3	13	5	0	0.076	0.0	0.002	0.7	1.7	13.0	26.6	2600.
3	13	5	15	0.069	0.0	0.008	0.7	0.3	12.8	26.7	2520.
3	13	5	30	0.072	0.0	0.010	0.6	1.1	13.4	26.7	2590.
3	13	5	45	0.072	0.005	0.007	0.8	1.1	14.6	26.6	2560.
3	13	6	0	0.073	0.0	0.007	0.5	0.5	16.0	26.7	2560.
3	13	6	15	0.075	0.0	0.0	0.6	0.6	14.8	26.9	2530.
3	13	6	30	0.084	0.0	0.0	0.8	1.2	13.9	26.6	2600.
3	13	6	45	0.090	0.0	0.0	0.7	1.7	13.6	26.6	2550.
3	13	7	0	0.095	0.0	0.0	0.9	1.3	13.6	26.9	2560.
3	13	7	15	0.086	0.0	0.004	0.8	2.6	13.3	26.6	2540.
3	13	7	30	0.094	0.0	0.006	0.8	2.3	12.9	26.6	2590.
3	13	7	45	0.094	0.003	0.003	0.8	2.2	12.8	26.7	2540.
3	13	8	0	0.105	0.0	0.006	0.7	4.2	13.1	26.6	2590.
3	13	8	15	0.105	0.0	0.001	0.9	2.4	13.2	26.7	2540.
3	13	8	30	0.125	0.0	0.005	0.9	4.4	13.4	26.6	2550.
3	13	8	45	0.132	0.0	0.003	0.8	5.3	13.5	26.8	2540.
3	13	9	0	0.140	0.0	0.0	1.0	4.8	13.5	26.8	2560.
3	13	9	15	0.119	0.0	0.003	0.7	4.6	13.3	26.6	2550.
3	13	9	30	0.150	0.0	0.004	0.7	4.8	13.2	26.8	2560.
3	13	9	45	0.139	0.0	0.006	0.8	4.4	13.2	26.7	2560.
3	13	10	0	0.134	0.0	0.009	0.8	4.9	13.2	26.6	2560.
3	13	10	15	0.141	0.0	0.006	0.8	2.9	13.4	26.7	2560.
3	13	10	30	0.144	0.0	0.003	0.9	3.2	13.6	26.8	2560.
3	13	10	45	0.140	0.0	0.002	0.9	3.8	13.7	26.6	2590.
3	13	11	0	0.129	0.0	0.0	0.9	3.3	13.7	26.6	2540.
3	13	11	15	0.139	0.0	0.007	0.9	3.6	13.7	26.7	2540.
3	13	11	30	0.125	0.0	0.002	0.8	3.0	13.6	26.6	2540.
3	13	11	45	0.142	0.0	0.008	0.8	4.1	13.6	26.7	2620.
3	13	12	0	0.115	0.007	0.007	0.6	5.8	13.8	26.6	2550.
3	13	12	15	0.102	0.004	0.004	0.8	6.5	13.9	26.6	2610.
3	13	12	30	0.104	0.0	0.008	0.9	4.9	13.9	26.6	2560.
3	13	12	45	0.090	0.0	0.009	0.7	2.2	13.9	26.6	2580.
3	13	13	0	0.097	0.0	0.007	0.7	1.8	14.0	26.5	2560.
3	13	13	15	0.097	0.0	0.013	0.7	1.5	14.0	26.6	2560.
3	13	13	30	0.100	0.0	0.008	0.8	0.9	13.9	26.6	2560.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	13	13	45	0.098	0.0	0.008	0.9	1.9	13.7	26.7	2540.
3	13	14	0	0.093	0.0	0.006	0.8	1.1	13.5	26.5	2580.
3	13	14	15	0.090	0.0	0.0	0.7	0.1	13.6	26.6	2590.
3	13	14	30	0.083	0.0	0.002	0.8	1.6	13.9	26.6	2560.
3	13	14	45	0.089	0.0	0.010	0.8	0.4	14.1	26.5	2570.
3	13	15	0	0.082	0.0	0.010	0.9	1.1	14.1	26.5	2560.
3	13	15	15	0.081	0.001	0.004	0.8	0.3	13.9	26.6	2590.
3	13	15	30	0.088	0.001	0.005	0.7	1.7	13.7	26.3	2540.
3	13	15	45	0.081	0.0	0.004	0.6	1.8	13.5	26.6	2590.
3	13	16	0	0.080	0.0	0.009	0.9	0.9	13.3	26.5	2520.
3	13	16	15	0.077	0.0	0.008	0.6	0.6	13.2	26.5	2540.
3	13	16	30	0.073	0.0	0.006	0.7	0.6	13.3	26.3	2540.
3	13	16	45	0.072	0.0	0.015	0.8	0.1	13.4	26.6	2590.
4	13	17	0	0.076	0.0	0.010	0.8	0.6	13.7	26.5	2560.
4	13	17	15	0.077	0.0	0.010	0.7	0.9	13.9	26.3	2540.
4	13	17	30	0.074	0.0	0.014	0.7	1.4	13.9	26.3	2560.
4	13	17	45	0.072	0.0	0.014	0.7	0.9	13.8	26.3	2550.
4	13	18	0	0.070	0.0	0.010	0.8	0.9	13.7	26.4	2550.
4	13	18	15	0.068	0.0	0.005	0.8	0.8	13.6	26.2	2590.
5	13	18	30	0.074	0.0	0.007	0.9	1.0	13.6	26.1	2590.
5	13	18	45	0.082	0.0	0.003	0.7	1.1	14.0	26.2	2560.
5	13	19	0	0.093	0.0	0.0	0.8	0.8	14.1	26.1	2590.
5	13	19	15	0.082	0.0	0.0	0.9	0.4	14.0	26.0	2560.
5	13	19	30	0.088	0.0	0.0	0.9	1.2	13.9	26.2	2560.
5	13	19	45	0.093	0.0	0.001	0.8	1.9	13.6	26.1	2550.
5	13	20	0	0.081	0.0	0.005	0.7	1.1	13.1	26.1	2550.
5	13	20	15	0.091	0.0	0.008	0.9	1.2	12.6	26.2	2540.
5	13	20	30	0.072	0.0	0.006	0.7	0.5	12.2	26.0	2540.
5	13	20	45	0.066	0.0	0.008	0.8	0.6	12.3	26.2	2560.
5	13	21	0	0.081	0.0	0.012	0.9	0.6	12.8	26.0	2550.
5	13	21	15	0.104	0.0	0.006	0.9	1.6	13.7	26.1	2540.
5	13	21	30	0.105	0.0	0.009	0.9	1.8	14.3	26.0	2550.
5	13	21	45	0.070	0.0	0.003	0.9	1.5	14.4	26.1	2560.
5	13	22	0	0.108	0.0	0.005	0.8	3.4	14.1	26.0	2540.
5	13	22	15	0.107	0.0	0.002	0.8	2.6	13.7	26.1	2540.
5	13	22	30	0.118	0.0	0.0	0.9	3.5	13.6	26.1	2540.
5	13	22	45	0.097	0.0	0.0	0.8	2.6	13.7	26.2	2550.
5	13	23	0	0.113	0.0	0.0	0.7	2.2	14.0	26.0	2590.
5	13	23	15	0.136	0.0	0.004	0.9	1.9	14.1	26.1	2560.
5	13	23	30	0.149	0.0	0.001	1.0	1.8	14.0	26.2	2550.
5	13	23	45	0.132	0.0	0.010	1.0	2.2	13.8	26.1	2540.
5	13	24	0	0.149	0.0	0.003	0.9	2.3	13.9	26.3	2550.
5	13	24	15	0.144	0.0	0.002	0.8	******	14.0	26.2	2560.
5	13	24	30	0.155	0.0	0.0	1.0	3.2	14.0	26.2	2530.
5	13	24	45	0.137	0.0	0.0	0.9	2.4	13.9	26.3	2560.
5	13	25	0	0.142	0.0	0.001	1.0	1.9	14.0	26.0	2560.
5	13	25	15	0.156	0.0	0.003	0.9	3.5	14.2	26.1	2550.
5	13	25	30	0.156	0.0	0.0	1.0	4.6	14.2	26.1	2590.
5	13	25	45	0.152	0.0	0.004	0.9	2.5	13.8	26.3	2550.
5	13	26	0	0.151	0.0	0.011	0.9	******	13.6	26.2	2540.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	13	26	15	0.135	0.0	0.015	1.9	3.3	13.4	26.3	2550.
5	13	26	30	0.138	0.0	0.007	1.0	3.3	13.3	26.2	2570.
5	13	26	45	0.117	0.0	0.015	0.8	2.9	13.2	26.4	2520.
5	13	27	0	0.102	0.0	0.005	1.1	1.6	13.2	26.6	2590.
5	13	27	15	0.104	0.0	0.0	0.9	******	13.3	26.5	2540.
5	13	27	30	0.093	0.0	0.004	0.9	1.3	13.4	26.5	2550.
5	13	27	45	0.099	0.0	0.006	0.8	1.6	13.6	26.7	2540.
5	13	28	0	0.101	0.0	0.003	0.9	1.3	13.2	26.6	2560.
5	13	28	15	0.092	0.0	0.001	0.8	1.7	12.8	26.6	2550.
5	13	28	30	0.087	0.0	0.002	0.9	1.4	12.8	26.7	2560.
5	13	28	45	0.081	0.0	0.005	0.8	0.2	13.1	26.8	2560.
5	13	29	0	0.082	0.0	0.003	0.7	0.2	13.4	26.8	2560.
5	13	29	15	0.079	0.0	0.005	0.8	0.7	13.4	26.7	2560.
5	13	29	30	0.079	0.0	0.0	0.7	0.4	13.4	26.8	2590.
5	13	29	45	0.080	0.0	0.0	0.7	1.4	13.3	26.5	2550.
5	13	30	0	0.078	0.0	0.0	0.7	0.9	13.3	26.6	2550.
5	13	30	15	0.076	0.0	0.0	0.7	0.9	13.2	26.6	2540.
5	13	30	30	0.078	0.0	0.003	0.7	0.6	13.2	26.7	2560.
5	13	30	45	0.073	0.0	0.0	0.8	0.4	13.3	26.7	2550.
5	13	31	0	0.076	0.0	0.0	0.9	0.5	13.5	26.9	2570.
5	13	31	15	0.079	0.0	0.006	0.7	0.4	13.6	26.9	2570.
5	13	31	30	0.077	0.0	0.0	0.7	0.4	13.5	26.7	2540.
5	13	31	45	0.083	0.0	0.0	0.8	0.4	13.3	26.7	2550.
5	13	32	0	0.078	0.0	0.0	0.7	1.0	13.1	26.8	2550.
5	13	32	15	0.079	0.0	0.0	0.8	0.0	13.1	26.9	2550.
5	13	32	30	0.078	0.005	0.005	0.9	0.5	13.3	27.0	2610.
5	13	32	45	0.079	0.0	0.0	0.7	0.2	13.5	27.0	2510.
5	13	33	0	0.083	0.0	0.0	0.8	0.5	13.6	27.0	2610.
5	13	33	15	0.084	0.0	0.001	0.6	2.2	13.4	27.0	2550.
5	13	33	30	0.081	0.0	0.007	0.8	1.2	13.3	27.0	2570.
5	13	33	45	0.080	0.0	0.004	0.6	1.2	13.3	27.0	2560.
5	13	34	0	0.087	0.0	0.0	0.7	0.1	13.4	27.1	2590.
5	13	34	15	0.087	0.0	0.001	0.7	1.1	13.3	27.0	2590.
5	13	34	30	0.087	0.0	0.0	0.7	1.4	13.3	26.9	2590.
5	13	34	45	0.083	0.0	0.002	0.8	0.3	13.3	27.1	2550.
5	13	35	0	0.087	0.0	0.0	0.9	0.5	13.5	27.1	2550.
6	13	35	15	0.091	0.0	0.003	0.7	0.4	13.6	27.1	2590.
6	13	35	30	0.086	0.0	0.004	0.8	0.5	13.6	27.1	2570.
6	13	35	45	0.087	0.0	0.0	0.8	0.4	13.5	27.0	2550.
6	13	36	0	0.084	0.0	0.0	0.6	0.2	13.3	27.1	2550.
6	13	36	15	0.084	0.0	0.005	0.7	0.5	14.0	27.1	2500.
6	13	36	30	0.086	0.0	0.004	0.8	0.6	15.7	27.1	2550.
6	13	36	45	0.088	0.0	0.001	0.8	1.5	17.3	27.0	2570.
6	13	37	0	0.083	0.006	0.006	0.7	0.5	15.6	27.1	2570.
6	13	37	15	0.084	0.007	0.007	0.8	0.3	13.8	27.2	2530.
6	13	37	30	0.087	0.0	0.006	0.8	0.1	13.1	27.1	2590.
6	13	37	45	0.083	0.0	0.006	0.6	0.0	13.2	27.1	2620.
6	13	37	45	0.083	0.0	0.003	0.8	0.3	13.2	27.0	2590.
6	13	38	0	0.081	0.0	0.005	0.7	0.3	13.1	27.1	2510.
6	13	38	15	0.082	0.0	0.006	0.7	0.4	13.2	27.1	2570.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	13	38	30	0.083	0.0	0.0	0.7	0.1	13.3	27.1	2610.
7	13	38	45	0.085	0.0	0.002	0.9	0.3	13.1	27.1	2570.
7	13	39	0	0.081	0.0	0.004	0.8	1.3	12.8	27.1	2570.
7	13	39	15	0.081	0.0	0.007	0.7	0.5	12.6	27.0	2560.
7	13	39	30	0.081	0.0	0.008	0.7	7.2	12.8	27.1	2560.
7	13	39	45	0.089	0.0	0.006	0.7	8.5	13.1	27.1	2550.
7	13	40	0	0.085	0.0	0.005	0.8	4.0	13.3	27.0	2570.
7	13	40	15	0.080	0.005	0.005	0.7	5.8	13.3	27.0	2620.
7	13	40	30	0.087	0.004	0.004	0.8	5.5	13.3	27.1	2610.
7	13	40	45	0.082	0.004	0.004	0.8	8.0	13.3	27.1	2520.
7	13	41	0	0.077	0.0	0.0	0.9	3.1	13.3	26.9	2550.
7	13	41	15	0.080	0.0	0.002	0.8	10.6	13.4	27.1	2620.
7	13	41	30	0.078	0.0	0.003	0.7	4.4	13.5	27.1	2630.
7	13	41	45	0.080	0.0	0.003	0.7	3.9	13.4	27.0	2650.
7	13	42	0	0.079	0.0	0.001	0.7	6.2	13.1	26.8	2630.
7	13	42	15	0.074	0.0	0.008	0.7	6.3	13.1	26.9	2680.
7	13	42	30	0.080	0.0	0.008	0.6	10.7	13.3	27.1	2630.
7	13	42	45	0.081	0.0	0.010	0.7	8.5	13.5	26.9	2670.
7	13	43	0	0.078	0.0	0.004	0.9	7.8	13.7	26.9	2610.
7	13	43	15	0.077	0.0	0.010	0.7	5.9	13.7	26.6	2650.
7	13	43	30	0.075	0.0	0.005	0.7	7.7	13.8	26.7	2630.
7	13	43	45	0.077	0.0	0.006	0.8	8.4	13.7	26.6	2610.
7	13	44	0	0.074	0.0	0.0	0.9	5.6	13.6	26.7	2630.
7	13	44	15	0.074	0.0	0.0	0.8	3.5	13.5	26.6	2630.
7	13	44	30	0.074	0.006	0.006	1.1	7.3	13.2	26.5	2660.
7	13	44	45	0.075	0.0	0.003	0.8	5.3	13.0	26.7	2640.
7	13	45	0	0.080	0.0	0.009	0.6	8.4	13.0	26.6	2670.
7	13	45	15	0.074	0.0	0.0	0.7	4.8	12.9	26.6	2620.
7	13	45	30	0.086	0.0	0.0	0.8	8.2	12.9	26.6	2680.
7	13	45	45	0.087	0.0	0.004	0.7	8.4	13.1	26.6	2660.
7	13	46	0	0.092	0.002	0.002	0.6	11.8	13.6	26.6	2680.
7	13	46	15	0.101	0.0	0.0	0.9	7.5	14.0	26.6	2640.
7	13	46	30	0.124	0.0	0.0	0.8	10.0	14.3	26.6	2620.
7	13	46	45	0.120	0.0	0.0	1.0	6.4	14.3	26.6	2650.
7	13	47	0	0.126	0.0	0.001	0.7	13.1	14.2	26.5	2630.
7	13	47	15	0.130	0.0	0.006	1.1	13.5	14.2	26.5	2630.
7	13	47	30	0.154	0.0	0.003	0.9	8.7	14.2	26.5	2640.
7	13	47	45	0.153	0.0	0.013	1.1	12.4	14.1	26.2	2650.
7	13	48	0	0.153	0.0	0.007	0.9	11.6	13.9	26.5	2630.
7	13	48	15	0.143	0.0	0.002	1.0	14.6	13.8	26.3	2630.
7	13	48	30	0.143	0.0	0.007	1.0	10.1	13.7	26.3	2670.
7	13	48	45	0.132	0.0	0.012	0.9	17.0	13.5	26.2	2630.
7	13	49	0	0.130	0.0	0.010	0.9	8.4	13.3	26.2	2690.
7	13	49	15	0.125	0.0	0.007	0.9	11.3	13.1	26.2	2620.
7	13	49	30	0.134	0.0	0.007	0.8	10.9	12.9	26.3	2620.
7	13	49	45	0.118	0.0	0.009	0.8	9.3	12.9	26.1	2620.
7	13	50	0	0.104	0.0	0.003	0.8	6.6	12.8	26.3	2650.
7	13	50	15	0.111	0.005	0.005	0.8	3.6	12.9	26.2	2630.
7	13	50	30	0.106	0.0	0.010	0.8	8.3	12.9	26.2	2650.
7	13	50	45	0.092	0.0	0.008	0.7	13.9	13.2	26.3	2620.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
	7	13	51	0	0.106	0.0	0.011	0.9	8.5	13.3	26.0	2650.
	7	13	51	15	0.109	0.0	0.007	0.8	11.6	13.1	26.2	2670.
	7	13	51	30	0.082	0.0	0.006	0.9	8.1	12.1	26.3	2630.
	7	13	51	45	0.069	0.0	0.009	0.7	5.4	11.0	26.1	2650.
	7	13	52	0	0.067	0.0	0.006	0.7	6.4	10.6	26.3	2630.
	7	13	52	15	0.061	0.0	0.008	0.8	4.7	11.1	26.2	2630.
	7	13	52	30	0.079	0.0	0.011	0.8	6.4	12.0	26.2	2630.
S	1	14	1	45	0.144	0.0	0.007	0.9	9.5	13.5	28.5	1500.
S	1	14	2	0	0.142	0.0	0.006	0.9	8.3	13.7	28.5	1600.
S	1	14	2	15	0.140	0.0	0.011	0.6	9.6	13.7	28.7	1700.
S	1	14	2	30	0.140	0.0	0.010	0.8	17.5	13.7	28.6	1800.
S	1	14	2	45	0.131	0.0	0.007	0.7	10.5	13.5	28.6	1900.
S	1	14	3	0	0.128	0.0	0.010	0.7	9.4	13.4	28.6	2000.
S	1	14	3	15	0.150	0.0	0.011	0.7	11.0	13.5	28.5	2050.
S	1	14	3	30	0.148	0.0	0.006	0.8	8.2	13.7	28.5	2100.
S	1	14	3	45	0.146	0.0	0.001	0.8	11.0	13.7	28.4	2150.
S	1	14	4	0	0.144	0.0	0.002	0.8	9.6	13.5	28.1	2200.
S	1	14	4	15	0.149	0.0	0.006	0.8	10.5	13.4	28.2	2250.
S	1	14	4	30	0.142	0.0	0.009	0.9	8.5	13.4	27.9	2300.
S	1	14	4	45	0.145	0.0	0.011	0.7	8.2	13.3	27.8	2350.
S	1	14	5	0	0.141	0.0	0.008	0.7	8.9	13.3	27.9	2400.
S	1	14	5	15	0.128	0.0	0.008	0.8	9.2	13.3	27.6	2450.
S	1	14	5	30	0.143	0.0	0.006	0.7	11.2	13.5	27.5	2500.
S	1	14	5	45	0.143	0.0	0.003	0.9	9.2	13.3	27.3	2550.
S	1	14	6	0	0.132	0.0	0.0	0.8	9.1	12.9	27.3	2650.
S	1	14	6	15	0.127	0.0	0.010	0.7	11.1	12.8	25.8	2700.
S	1	14	6	30	0.114	0.0	0.010	0.7	8.7	12.9	25.6	2750.
S	1	14	6	45	0.129	0.0	0.006	0.9	11.7	13.0	25.6	2850.
S	1	14	7	0	0.131	0.0	0.009	0.9	10.4	12.9	25.1	2900.
S	1	14	7	15	0.126	0.0	0.008	0.8	10.9	12.5	25.1	2950.
S	1	14	7	30	0.124	0.0	0.002	0.7	7.6	12.1	25.0	3000.
S	1	14	7	45	0.146	0.0	0.0	0.7	10.1	12.2	24.7	3100.
S	1	14	8	0	0.148	0.0	0.004	0.9	8.6	12.4	24.4	3150.
S	1	14	8	15	0.146	0.0	0.014	0.9	10.0	12.5	24.3	3200.
S	1	14	8	30	0.130	0.0	0.014	0.7	8.2	12.3	24.3	3300.
S	1	14	8	45	0.136	0.0	0.012	0.8	8.5	12.4	23.8	3350.
S	1	14	9	0	0.138	0.0	0.010	0.9	9.6	12.4	23.4	3400.
S	1	14	9	15	0.120	0.0	0.006	0.7	7.1	12.5	23.4	3500.
S	1	14	9	30	0.121	0.0	0.007	0.7	8.7	12.4	23.3	3550.
S	1	14	9	45	0.121	0.0	0.012	1.0	11.7	12.3	22.9	3650.
S	1	14	10	0	0.123	0.0	0.009	1.0	10.8	12.1	22.6	3700.
S	1	14	10	15	0.136	0.0	0.008	0.9	10.4	11.8	22.5	3750.
S	1	14	10	30	0.124	0.0	0.004	0.9	7.4	11.7	22.4	3750.
S	1	14	10	45	0.127	0.0	0.008	0.9	7.2	11.8	22.1	3800.
S	1	14	11	0	0.145	0.0	0.005	1.0	7.4	11.9	22.0	3850.
S	1	14	11	15	0.142	0.0	0.010	1.0	10.4	11.9	21.8	3900.
S	1	14	11	30	0.139	0.0	0.007	0.8	5.2	11.9	21.6	3950.
S	1	14	11	45	0.142	0.0	0.009	1.0	7.9	12.0	21.2	4000.
S	1	14	12	0	0.137	0.0	0.006	0.9	7.7	11.9	21.1	4100.
S	1	14	12	15	0.133	0.0	0.007	0.8	9.5	11.3	20.9	4200.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	12	30	0.113	0.007	******	0.8	5.1	10.5	20.6	4300.
S 1	14	12	45	0.108	0.0	0.004	0.7	6.4	10.0	20.3	4400.
S 1	14	13	0	0.107	0.0	0.004	1.0	7.8	10.2	19.9	4500.
S 1	14	13	15	0.108	0.0	0.011	0.9	10.9	10.4	19.9	4600.
S 1	14	13	30	0.117	0.0	0.004	0.9	8.8	10.5	19.8	4700.
S 1	14	13	45	0.109	0.0	0.004	1.0	6.7	10.0	19.6	4800.
S 1	14	14	0	0.090	0.0	0.005	0.8	4.4	9.2	19.4	4900.
S 1	14	14	15	0.089	0.0	0.0	0.8	4.2	8.8	19.1	5000.
S 1	14	14	30	0.111	0.0	0.0	0.8	6.6	8.5	18.9	5050.
S 1	14	14	45	0.103	0.0	0.0	0.7	6.5	8.4	18.7	5100.
S 1	14	15	0	0.112	0.0	0.002	0.9	4.6	8.6	18.5	5200.
S 1	14	15	15	0.109	0.0	0.002	0.8	4.3	8.6	18.1	5250.
S 1	14	15	30	0.090	0.0	0.002	0.6	6.1	7.7	17.8	5300.
S 1	14	15	45	0.083	0.0	0.004	0.7	3.0	6.8	17.6	5400.
S 1	14	16	0	0.078	0.0	0.001	0.7	2.9	6.1	17.6	5500.
S 1	14	16	15	0.073	0.001	0.007	0.6	2.1	5.9	17.4	5600.
S 1	14	16	30	0.068	0.0	0.006	0.7	2.5	6.0	17.1	5700.
S 1	14	16	45	0.097	0.0	0.006	0.8	2.5	6.3	17.7	5800.
S 1	14	17	0	0.077	0.0	0.003	0.6	2.2	5.9	16.9	5900.
S 1	14	17	15	0.070	0.0	0.002	0.6	2.2	5.6	16.8	6000.
S 1	14	17	30	0.071	0.0	0.002	0.8	1.8	5.5	16.7	6050.
S 1	14	17	45	0.078	0.0	0.003	0.8	2.4	5.7	16.2	6150.
S 1	14	18	0	0.078	0.0	0.0	0.7	3.0	5.7	16.3	6200.
S 1	14	18	15	0.072	0.0	0.0	0.7	2.8	5.4	16.1	6250.
S 1	14	18	30	0.070	0.0	0.005	0.6	1.5	5.1	15.8	6300.
S 1	14	18	45	0.069	0.0	0.007	0.7	0.9	5.0	15.6	6400.
S 1	14	19	0	0.075	0.0	0.007	0.8	2.1	4.6	15.4	6450.
S 1	14	19	15	0.064	0.0	0.010	0.7	1.0	4.3	15.5	6550.
S 1	14	19	30	0.065	0.0	0.004	0.7	1.5	4.1	15.1	6600.
S 1	14	19	45	0.060	0.0	0.007	0.6	0.7	3.8	14.9	6650.
S 1	14	20	0	0.068	0.0	0.002	0.6	1.7	3.4	14.6	6750.
S 1	14	20	15	0.055	0.0	0.005	0.5	0.4	2.7	14.6	6800.
S 1	14	20	30	0.064	0.0	0.007	0.7	0.7	2.5	14.4	6850.
S 1	14	20	45	0.065	0.0	0.003	0.6	0.2	2.7	14.8	6950.
S 1	14	21	0	0.068	0.0	0.007	0.7	1.3	2.9	14.1	7000.
S 1	14	21	15	0.059	0.0	0.002	0.7	0.8	2.6	13.7	7100.
S 1	14	21	30	0.060	0.0	0.0	0.6	0.4	2.2	13.4	7200.
S 1	14	21	45	0.057	0.0	0.001	0.8	0.4	1.6	13.4	7300.
S 1	14	22	0	0.055	0.0	0.004	0.6	0.7	0.9	13.2	7400.
S 1	14	22	15	0.056	0.0	0.001	0.6	0.8	0.6	13.0	7500.
S 1	14	22	30	0.054	0.0	0.003	0.7	0.1	0.6	12.9	7600.
S 1	14	22	45	0.065	0.0	0.006	0.6	1.1	0.8	12.6	7650.
S 1	14	23	0	0.054	0.0	0.006	0.5	3.6	0.4	12.5	7700.
S 1	14	23	15	0.050	0.0	0.002	0.4	3.2	-0.1	12.1	7800.
S 1	14	23	30	0.051	0.003	0.003	0.6	6.1	-0.5	12.0	7850.
S 1	14	23	45	0.052	0.0	0.011	0.6	3.1	-0.6	11.8	7950.
S 1	14	24	0	0.052	0.0	0.008	0.5	3.6	-0.7	11.8	8000.
S 1	14	24	15	0.058	0.0	0.007	0.6	3.5	-1.2	11.5	8100.
S 1	14	24	30	0.055	0.0	0.010	0.5	3.8	-2.1	11.1	8150.
S 1	14	24	45	0.055	0.007	0.007	0.6	5.5	-3.2	11.3	8250.

TULSA FLIGHT NUMBER 10 DATE: 9- 2

LEG		HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	14	25	0	0.062	0.0	0.0	0.8	5.4	-3.5	11.1	8300.
S	1	14	25	15	0.062	0.0	0.0	0.7	3.3	-3.9	11.0	8400.
S	1	14	25	30	0.064	0.0	0.004	0.6	3.8	-4.9	10.8	8450.
S	1	14	25	45	0.062	0.0	0.002	0.6	2.3	-6.5	10.6	8550.
S	1	14	26	0	0.054	0.0	0.009	0.5	4.1	-8.3	10.5	8600.
S	1	14	26	15	0.057	0.0	0.010	0.6	4.1	-9.6	10.3	8700.
S	1	14	26	30	0.055	0.0	0.001	0.5	3.6	-10.4	10.3	8750.
S	1	14	26	45	0.059	0.0	0.010	0.4	3.0	-10.8	10.3	8850.
S	1	14	27	0	0.054	0.0	0.010	0.4	3.2	-11.0	10.1	8950.
S	1	14	27	15	0.055	0.0	0.006	0.5	2.7	-11.1	9.9	9000.
S	1	14	27	30	0.054	0.0	0.0	0.5	2.4	-11.1	9.7	9100.
S	1	14	27	45	0.056	0.0	0.0	0.5	2.1	-11.0	9.8	9200.
S	1	14	28	0	0.056	0.0	0.002	0.5	2.7	-10.8	9.8	9300.
S	1	14	28	15	0.064	0.0	0.0	0.5	2.2	-10.7	9.9	9400.
S	1	14	28	30	0.063	0.0	0.005	0.6	3.6	-10.7	9.8	9500.
S	1	14	33	15	0.070	0.0	0.007	0.5	3.0	-10.8	9.3	10900.
S	1	14	33	30	0.068	0.0	0.0	0.6	2.0	-10.6	9.2	11000.
S	1	14	33	45	0.079	0.0	0.006	0.4	3.0	-10.0	9.1	11100.
S	1	14	34	0	0.066	0.0	0.001	0.5	2.4	-9.4	9.0	11200.
S	1	14	34	15	0.073	0.0	0.004	0.5	3.9	-9.3	9.0	11300.
S	1	14	34	30	0.070	0.0	0.011	0.6	4.0	-9.5	8.8	11400.
S	1	14	34	45	0.072	0.0	0.009	0.5	3.0	-9.0	8.5	11500.
S	1	14	35	0	0.068	0.0	0.009	0.5	3.1	-8.0	8.5	11600.
S	1	14	35	15	0.069	0.0	0.013	0.5	1.4	-7.0	8.4	11700.

TULSA FLIGHT NUMBER 11 DATE: 9- 3-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	26	45	0.058	0.005	0.005	1.0	0.0	13.3	25.0	1250.
S 1	5	27	0	0.068	0.004	0.006	0.8	0.0	12.8	25.2	1300.
S 1	5	27	15	0.067	0.003	0.006	0.8	0.0	12.3	25.3	1350.
S 1	5	27	30	0.070	0.005	0.005	0.9	0.0	11.9	25.4	1450.
S 1	5	27	45	0.072	0.002	0.007	0.9	0.0	11.5	25.4	1650.
S 1	5	28	0	0.071	0.005	0.005	0.8	0.0	11.3	25.5	1700.
S 1	5	28	15	0.072	0.003	0.003	0.8	0.0	11.2	25.6	1800.
S 1	5	28	30	0.075	0.002	0.002	0.7	0.0	11.1	25.7	1900.
S 1	5	28	45	0.074	0.002	0.002	1.0	0.0	11.1	25.7	1950.
S 1	5	29	0	0.082	0.003	0.003	0.9	0.0	11.1	25.8	2000.
S 1	5	29	15	0.076	0.002	0.002	0.9	0.0	11.1	25.8	2050.
S 1	5	29	30	0.079	0.003	0.003	0.8	0.1	11.1	25.8	2150.
S 1	5	29	45	0.081	0.002	0.002	0.9	0.2	11.1	25.8	2200.
S 1	5	30	0	0.080	0.0	0.004	0.9	0.3	11.1	25.8	2250.
S 1	5	30	15	0.080	0.002	0.006	0.9	0.3	11.1	25.7	2350.
S 1	5	30	30	0.080	0.0	0.007	0.9	0.4	11.1	25.6	2400.
S 1	5	30	45	0.080	0.0	0.003	1.0	0.4	11.0	25.6	2450.
S 1	5	31	0	0.084	0.003	0.004	0.9	0.4	11.0	25.5	2550.
S 1	5	31	15	0.082	0.003	0.005	1.0	0.4	10.9	25.5	2600.
S 1	5	31	30	0.083	0.007	0.007	0.9	0.4	10.8	25.4	2650.
S 1	5	31	45	0.077	0.006	0.006	0.8	0.4	10.7	25.3	2750.
S 1	5	32	0	******	0.002	0.004	0.8	0.4	10.5	25.1	2800.
S 1	5	32	15	0.081	0.003	0.005	0.9	0.4	10.4	25.0	2850.
S 1	5	32	30	0.076	0.005	0.006	0.9	0.3	10.1	24.9	2950.
S 1	5	32	45	0.074	0.002	0.004	0.9	0.3	9.9	24.8	3000.
S 1	5	33	0	0.080	0.005	0.005	0.8	0.3	9.8	24.7	3050.
S 1	5	33	15	0.079	0.002	0.002	0.9	0.3	9.7	24.6	3150.
S 1	5	33	30	0.078	0.004	0.004	0.8	0.3	9.7	24.4	3200.
S 1	5	33	45	0.075	0.004	0.004	0.7	0.3	9.6	24.3	3250.
S 1	5	34	0	0.073	0.003	0.003	0.9	0.3	9.6	24.1	3350.
S 1	5	34	15	0.072	0.002	0.002	0.9	0.3	9.6	23.9	3400.
S 1	5	34	30	0.076	0.003	0.003	0.9	0.3	9.6	23.8	3450.
S 1	5	34	45	0.073	0.002	0.003	0.8	0.3	9.5	23.6	3550.
S 1	5	35	0	0.075	0.004	0.004	0.9	0.3	9.5	23.5	3600.
S 1	5	35	15	0.073	0.003	0.007	0.8	0.3	9.4	23.3	3650.
S 1	5	35	30	0.078	0.003	0.004	1.0	0.3	9.1	23.1	3750.
S 1	5	35	45	0.075	0.003	0.003	1.0	0.3	8.6	23.0	3800.
S 1	5	36	0	0.073	0.0	0.003	1.0	0.4	8.4	22.8	3850.
S 1	5	36	15	0.075	0.0	0.004	0.9	0.3	8.4	22.6	3950.
S 1	5	36	30	0.078	0.002	0.002	1.0	0.3	8.6	22.4	4000.
S 1	5	36	45	0.070	0.005	0.005	0.9	0.3	8.9	22.2	4100.
S 1	5	37	0	0.074	0.002	0.002	0.9	0.3	9.0	22.1	4200.
S 1	5	37	15	0.072	0.004	0.004	1.1	0.3	8.9	21.9	4300.
S 1	5	37	30	0.070	0.004	0.005	0.9	0.3	8.9	21.6	4450.
S 1	5	37	45	0.072	0.001	0.003	0.9	0.3	8.8	21.4	4550.
S 1	5	38	0	0.075	0.004	0.005	1.0	0.3	8.5	21.2	4650.
S 1	5	38	15	0.078	0.002	0.006	1.0	0.3	8.2	21.0	4800.
S 1	5	38	30	0.071	0.003	0.004	1.0	0.3	7.8	20.8	4900.
S 1	5	38	45	0.070	0.002	0.003	0.9	0.3	7.6	20.5	5000.
S 1	5	39	0	0.072	0.0	0.003	1.0	0.3	7.4	20.3	5050.

TULSA FLIGHT NUMBER 11 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	39	15	0.067	0.0	0.002	1.1	0.3	7.2	20.1	5150.
S 1	5	39	30	0.070	0.0	0.002	1.0	0.2	7.1	19.8	5200.
S 1	5	39	45	0.070	0.001	0.002	1.0	0.2	7.1	19.6	5300.
S 1	5	40	0	0.070	0.001	0.004	1.1	0.2	7.1	19.4	5350.
S 1	5	40	15	0.066	0.0	0.003	1.1	0.2	7.1	19.2	5450.
S 1	5	40	30	0.073	0.003	0.003	1.0	0.2	7.1	18.9	5500.
S 1	5	40	45	0.071	0.005	0.005	1.0	0.2	7.1	18.7	5550.
S 1	5	41	0	0.069	0.005	0.003	1.0	0.3	7.1	18.4	5650.
S 1	5	41	15	0.072	0.002	0.002	0.8	0.2	7.1	18.2	5700.
S 1	5	41	30	0.070	0.003	0.003	1.2	0.2	6.9	17.9	5800.
S 1	5	41	45	0.075	0.003	0.003	0.9	0.2	6.6	17.7	5850.
S 1	5	42	0	0.073	0.002	0.002	1.1	0.2	6.2	17.5	5950.
S 1	5	42	15	0.066	0.002	0.002	1.0	0.2	5.8	17.3	6000.
S 1	5	42	30	0.067	0.002	0.002	0.8	0.1	5.8	17.0	6100.
S 1	5	42	45	0.069	0.002	0.002	1.1	0.2	5.9	16.8	6200.
S 1	5	43	0	0.069	0.003	0.003	0.9	0.1	5.9	16.6	6300.
S 1	5	43	15	0.074	0.004	0.004	1.0	1.1	5.9	16.4	6400.
S 1	5	43	30	0.071	0.002	0.002	0.9	1.1	5.9	16.2	6500.
S 1	5	43	45	0.068	0.002	0.002	0.8	1.2	6.0	15.9	6600.
S 1	5	44	0	0.073	0.002	0.004	1.1	1.4	6.0	15.7	6700.
S 1	5	44	15	0.069	0.003	0.003	1.1	1.4	5.9	15.5	6800.
S 1	5	44	30	0.071	0.003	0.003	1.0	1.2	5.7	15.2	6900.
S 1	5	44	45	0.067	0.001	0.004	0.9	1.2	5.4	15.0	7000.
S 1	5	45	0	0.072	0.003	0.003	0.9	1.1	5.3	14.7	7100.
S 1	5	45	15	0.069	0.001	0.003	1.0	1.1	5.3	14.5	7150.
S 1	5	45	30	0.071	0.0	0.002	1.0	1.1	5.3	14.3	7250.
S 1	5	45	45	0.072	0.0	0.005	1.0	1.1	5.2	14.0	7350.
S 1	5	46	0	0.071	0.001	0.005	1.1	1.1	5.2	13.8	7400.
S 1	5	46	15	0.070	0.0	0.005	1.0	1.1	5.1	13.5	7500.
S 1	5	46	30	0.067	0.002	0.003	1.0	1.1	5.1	13.2	7600.
S 1	5	46	45	0.065	0.002	0.002	1.0	1.0	5.0	13.0	7650.
S 1	5	47	0	0.068	0.003	0.003	1.0	1.0	4.9	12.8	7750.
S 1	5	47	15	0.069	0.003	0.003	1.0	1.0	4.7	12.5	7850.
S 1	5	47	30	0.067	0.005	0.005	1.1	1.1	4.6	12.2	7900.
S 1	5	47	45	0.062	0.002	0.004	0.9	0.8	4.4	12.0	8000.
S 1	5	48	0	0.064	0.002	0.004	1.2	0.9	4.2	11.8	8050.
S 1	5	48	15	0.067	0.002	0.002	0.8	0.9	3.9	11.5	8150.
S 1	5	48	30	0.063	0.002	0.002	1.0	0.8	3.9	11.2	8200.
S 1	5	48	45	0.066	0.002	0.002	0.8	0.7	3.9	11.0	8300.
S 1	5	49	0	0.061	0.001	0.002	0.9	0.7	3.6	10.8	8350.
S 1	5	49	15	0.063	0.004	0.007	1.1	0.9	3.3	10.5	8450.
S 1	5	49	30	0.063	0.003	0.004	1.1	0.6	3.0	10.2	8500.
S 1	5	49	45	0.063	0.002	0.002	1.0	0.7	2.9	10.1	8550.
S 1	5	50	0	0.060	0.0	0.004	0.9	0.5	2.1	9.7	8650.
S 1	5	50	15	0.060	0.002	0.002	0.7	0.3	0.8	9.5	8700.
S 1	5	50	30	0.057	0.002	0.002	0.7	0.4	-0.5	9.3	8800.
S 1	5	50	45	0.059	0.003	0.003	0.6	0.3	-1.0	9.1	8850.
S 1	5	51	0	0.058	0.002	0.002	0.7	0.4	-1.1	8.9	8950.
S 1	5	51	15	0.059	0.005	0.005	0.6	0.4	-1.5	8.7	9000.
S 1	5	51	30	0.056	0.004	0.004	0.6	0.3	-2.7	8.4	9050.

TULSA FLIGHT NUMBER 11 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	51	45	0.054	0.005	0.005	0.6	0.3	-4.4	8.3	9150.
S 1	5	52	0	0.051	0.003	0.008	0.5	0.2	-7.1	8.2	9250.
S 1	5	52	15	0.048	0.004	0.007	0.5	0.2	-9.3	7.9	9300.
S 1	5	52	30	0.053	0.003	0.003	0.5	0.2	-11.2	7.9	9400.
S 1	5	52	45	0.053	0.003	0.003	0.6	0.2	-12.8	7.7	9450.
S 1	5	53	0	0.053	0.002	0.002	0.6	0.2	-14.5	7.6	9550.
S 1	5	53	15	0.053	0.002	0.002	0.4	0.2	-15.7	7.4	9600.
S 1	5	53	30	0.048	0.002	0.002	0.6	0.2	-16.1	7.4	9700.
S 1	5	53	45	0.052	0.003	0.003	0.5	0.2	-15.8	7.3	9750.
S 1	5	54	0	0.055	0.001	0.001	0.5	0.2	-15.3	7.2	9850.
S 1	5	54	15	0.055	0.003	0.003	0.7	0.2	-14.8	7.1	9900.
S 1	5	54	30	0.064	0.003	0.005	0.5	0.2	-9.7	7.0	10000.
1	6	4	15	0.080	0.005	0.005	1.0	1.5	4.9	22.1	2580.
1	6	4	30	0.077	0.003	0.007	0.9	1.7	4.7	22.4	2580.
1	6	4	45	0.076	0.005	0.005	0.8	1.7	4.7	22.9	2600.
1	6	5	0	0.076	0.002	0.002	0.9	1.9	4.6	23.2	2590.
1	6	5	15	0.066	0.001	0.004	0.9	1.6	4.7	23.6	2590.
1	6	5	30	0.081	0.003	0.003	0.8	1.6	4.8	23.9	2630.
1	6	5	45	0.076	0.003	0.003	0.9	1.7	4.8	24.1	2620.
1	6	6	0	0.077	0.002	0.002	0.9	1.8	4.8	24.3	2640.
1	6	6	15	0.078	0.002	0.002	0.9	1.8	4.8	24.5	2720.
1	6	6	30	0.077	0.001	0.001	0.7	1.7	4.7	24.6	2640.
1	6	6	45	0.079	0.001	0.001	1.0	1.6	4.5	24.8	2630.
1	6	7	0	0.081	0.002	0.002	1.0	1.6	4.8	25.0	2650.
1	6	7	15	0.081	0.002	0.002	0.8	1.6	4.4	25.0	2620.
1	6	7	30	0.082	0.002	0.002	0.9	1.6	4.5	25.3	2630.
1	6	7	45	0.085	0.002	0.003	1.0	1.7	4.6	25.3	2620.
1	6	8	0	0.081	0.002	0.002	0.8	1.6	4.6	25.4	2620.
1	6	8	15	0.078	0.0	0.0	1.0	1.8	4.6	25.5	2620.
1	6	8	30	0.076	0.001	0.003	0.8	1.6	4.6	25.6	2620.
1	6	8	45	0.074	0.0	0.005	0.9	1.6	4.7	25.7	2620.
1	6	9	0	0.084	0.003	0.005	0.9	1.7	4.8	25.7	2630.
1	6	9	15	0.077	0.001	0.004	0.9	1.7	4.9	25.8	2630.
1	6	9	30	0.082	0.003	0.003	0.8	1.8	10.0	25.8	2630.
1	6	9	45	0.086	0.004	0.004	0.8	1.8	10.1	25.8	2630.
1	6	10	0	0.083	0.0	0.0	0.9	1.7	10.2	25.8	2630.
1	6	10	15	0.081	0.002	0.002	0.8	1.8	10.3	25.8	2630.
1	6	10	30	0.080	0.003	0.003	0.7	1.9	10.3	25.8	2630.
1	6	10	45	0.082	0.002	0.002	0.8	1.8	10.3	25.8	2630.
1	6	11	0	0.078	0.0	0.0	1.0	1.9	10.2	25.8	2620.
1	6	11	15	0.079	0.0	0.0	0.7	1.7	10.3	25.8	2630.
1	6	11	30	0.078	0.002	0.002	0.8	1.6	10.3	25.8	2630.
1	6	11	45	0.080	0.001	0.001	0.7	1.7	10.3	25.9	2630.
1	6	12	0	0.080	0.0	0.0	0.8	1.7	10.3	25.8	2630.
1	6	12	15	0.078	0.0	0.0	0.8	1.7	10.2	25.9	2630.
1	6	12	30	0.079	0.003	0.003	0.7	1.6	10.2	25.9	2630.
1	6	12	45	0.071	0.004	0.005	0.8	2.0	10.2	25.9	2630.
1	6	13	0	0.078	0.003	0.003	1.0	1.8	10.2	26.0	2630.
1	6	13	15	0.080	0.001	0.002	0.9	1.9	10.1	26.0	2650.
1	6	13	30	0.071	0.0	0.002	0.8	2.0	10.0	25.9	2630.

TULSA FLIGHT NUMBER 11 DATE: 9- 5

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6	13	45	0.079	0.0	0.002	0.9	1.7	10.1	25.9	2630.
1	6	14	0	0.075	0.003	0.005	0.8	1.7	10.2	26.0	2630.
1	6	14	15	0.080	0.003	0.003	0.8	1.8	10.3	26.0	2630.
1	6	14	30	0.074	0.004	0.005	1.0	1.7	10.4	26.0	2610.
1	6	14	45	0.072	0.004	0.004	0.7	1.8	10.5	26.0	2630.
1	6	15	0	0.074	0.002	0.002	0.8	1.8	10.6	25.9	2620.
1	6	15	15	0.072	0.002	0.002	0.9	1.7	10.5	25.9	2610.
1	6	15	30	0.070	0.004	0.004	0.8	1.7	10.4	25.9	2630.
1	6	15	45	0.066	0.005	0.005	0.9	1.8	10.3	25.9	2630.
1	6	16	0	0.076	0.0	0.0	0.9	1.7	10.2	25.8	2630.
1	6	16	15	0.076	0.003	0.003	0.9	1.8	10.2	25.9	2630.
1	6	16	30	0.075	0.0	0.0	0.8	1.9	10.3	25.8	2610.
1	6	16	45	0.078	0.002	0.002	1.0	1.9	10.3	25.8	2620.
1	6	17	0	0.081	0.003	0.004	0.9	1.9	10.2	25.9	2610.
1	6	17	15	0.080	0.006	0.006	0.8	1.9	10.1	25.8	2630.
1	6	17	30	0.079	0.002	0.002	0.8	1.9	10.0	25.8	2630.
1	6	17	45	0.079	0.001	0.001	0.8	1.8	9.9	25.8	2630.
1	6	18	0	0.083	0.002	0.005	0.8	1.8	9.7	25.8	2630.
1	6	18	15	0.086	0.003	0.006	1.0	1.7	9.7	25.8	2610.
1	6	18	30	0.081	0.001	0.001	0.7	1.9	9.8	25.8	2630.
1	6	18	45	0.082	0.003	0.003	1.0	1.8	9.9	25.8	2630.
1	6	19	0	0.084	0.002	0.003	0.8	1.9	10.0	25.8	2630.
1	6	19	15	0.088	0.0	0.003	0.8	1.8	9.9	25.8	2630.
1	6	19	30	0.084	0.0	0.0	0.9	1.8	9.7	25.8	2650.
1	6	19	45	0.085	0.001	0.001	0.9	1.8	9.6	25.8	2630.
1	6	20	0	0.086	0.001	0.001	0.8	1.7	9.4	25.8	2650.
2	6	20	15	0.086	0.001	0.001	0.8	1.7	9.5	25.8	2640.
2	6	20	30	0.080	0.0	0.0	0.8	1.7	9.6	25.8	2640.
2	6	20	45	0.082	0.0	0.0	0.9	1.8	9.8	25.8	2640.
2	6	21	0	0.081	0.0	0.0	0.9	1.8	9.9	25.8	2640.
2	6	21	15	0.082	0.0	0.0	0.9	1.9	9.9	25.8	2630.
2	6	21	30	0.086	0.004	0.004	1.0	1.9	9.9	25.8	2630.
2	6	21	45	0.085	0.002	0.002	0.9	1.9	10.0	25.8	2640.
2	6	22	0	0.081	0.003	0.003	0.9	1.9	10.1	25.8	2650.
2	6	22	15	0.080	0.002	0.002	1.0	1.9	10.3	25.8	2650.
2	6	22	30	0.082	0.003	0.003	0.9	1.9	10.4	25.8	2650.
3	6	22	45	0.077	0.004	0.005	0.8	1.8	10.5	25.8	2650.
3	6	23	0	0.079	0.002	0.002	0.6	1.9	10.6	25.8	2640.
3	6	23	15	0.078	0.0	0.0	0.9	1.8	10.7	25.7	2650.
3	6	23	30	0.077	0.0	0.0	0.8	1.9	10.8	25.7	2640.
3	6	23	45	0.071	0.0	0.0	0.9	1.9	10.9	25.7	2620.
3	6	24	0	0.076	0.002	0.002	0.8	1.9	10.9	25.7	2650.
3	6	24	15	0.072	0.003	0.005	1.0	1.8	10.8	25.7	2640.
3	6	24	30	0.073	0.002	0.004	0.8	1.8	10.8	25.7	2620.
3	6	24	45	0.068	0.005	0.005	0.9	1.7	10.8	25.7	2640.
3	6	25	0	0.073	0.002	0.002	0.9	1.7	10.7	25.8	2640.
3	6	25	15	0.070	0.002	0.002	0.8	1.7	10.7	25.8	2650.
3	6	25	30	0.070	0.0	0.0	1.0	1.8	10.6	25.8	2640.
3	6	25	45	0.071	0.0	0.0	1.0	1.9	10.5	25.8	2650.
3	6	26	0	0.074	0.0	0.0	0.8	1.9	10.5	25.8	2650.

TULSA FLIGHT NUMBER 11 DATE: 9- 5

LEG	HR	MIN	SEC	OZONE PPM	SO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	26	15	0.073	0.002	0.002	0.9	1.7	10.5	25.8	2640.
5	6	26	30	0.072	0.005	0.005	0.9	1.7	10.5	25.7	2640.
5	6	26	45	0.072	0.002	0.002	1.0	2.0	10.5	25.7	2650.
5	6	27	0	0.075	0.002	0.002	1.1	2.0	10.5	25.7	2650.
5	6	27	15	0.075	0.001	0.003	0.9	2.1	10.5	25.7	2640.
5	6	27	30	0.076	0.004	0.004	0.9	2.1	10.5	25.7	2650.
5	6	27	45	0.074	0.0	0.0	1.0	1.9	10.5	25.7	2640.
5	6	28	0	0.071	0.001	0.001	1.0	2.0	10.5	25.7	2660.
5	6	28	15	0.075	0.0	0.0	0.9	2.0	10.5	25.7	2640.
5	6	28	30	0.077	0.0	0.0	0.9	1.9	10.4	25.7	2650.
5	6	28	45	0.074	0.0	0.0	0.8	2.1	10.5	25.7	2640.
5	6	29	0	0.081	0.002	0.003	1.0	2.1	10.2	25.7	2640.
5	6	29	15	0.079	0.002	0.002	1.0	1.1	10.2	25.8	2650.
5	6	29	30	0.074	0.0	0.001	0.9	2.0	10.1	25.7	2640.
5	6	29	45	0.080	0.0	0.0	1.0	1.1	10.1	25.8	2650.
5	6	30	0	0.079	0.0	0.0	1.0	1.9	10.1	25.8	2640.
5	6	30	15	0.085	0.0	0.001	1.0	1.9	10.2	25.9	2640.
5	6	30	30	0.081	0.0	0.001	0.9	2.0	10.4	25.8	2660.
5	6	30	45	0.084	0.0	0.0	1.0	1.8	10.5	25.8	2670.
5	6	31	0	0.081	0.0	0.001	1.0	1.8	10.6	25.9	2640.
5	6	31	15	0.083	0.004	0.005	0.9	1.9	10.7	25.8	2650.
5	6	31	30	0.084	0.004	0.005	0.9	1.8	10.8	25.8	2660.
5	6	31	45	0.083	0.004	0.004	1.0	1.9	10.8	25.8	2640.
5	6	32	0	0.084	0.003	0.003	1.0	1.9	10.8	25.8	2650.
5	6	32	15	0.083	0.003	0.006	1.0	2.1	10.7	25.8	2660.
5	6	32	30	0.085	0.003	0.004	0.9	1.8	10.7	25.9	2660.
5	6	32	45	0.081	0.001	0.001	0.8	1.8	10.7	25.8	2640.
5	6	33	0	0.082	0.002	0.002	1.0	1.8	10.6	25.8	2650.
5	6	33	15	0.080	0.0	0.0	0.8	1.8	10.5	25.7	2650.
5	6	33	30	0.081	0.0	0.0	0.8	1.8	10.4	25.8	2650.
5	6	33	45	0.079	0.0	0.0	0.9	1.7	10.1	25.8	2670.
5	6	34	0	0.080	0.0	0.0	0.8	1.5	9.8	25.8	2670.
5	6	34	15	0.082	0.006	0.007	0.9	1.5	9.7	25.8	2650.
5	6	34	30	0.084	0.0	0.0	0.8	1.6	9.7	25.8	2670.
5	6	34	45	0.084	0.0	0.0	0.9	1.6	9.7	25.7	2650.
5	6	35	0	0.082	0.0	0.0	1.0	1.4	9.6	25.8	2650.
5	6	35	15	0.081	0.0	0.0	0.9	1.4	9.5	25.9	2670.
5	6	35	30	0.082	0.0	0.0	0.9	1.4	9.4	25.8	2670.
5	6	35	45	0.080	0.001	0.001	0.7	1.6	9.3	25.9	2670.
5	6	36	0	0.082	0.0	0.0	0.8	1.5	9.3	26.0	2670.
5	6	36	15	0.084	0.0	0.0	0.9	1.5	9.3	26.0	2670.
5	6	36	30	0.081	0.0	0.002	0.8	1.4	9.2	26.0	2660.
5	6	36	45	0.078	0.0	0.005	0.8	1.4	9.1	26.0	2650.
5	6	37	0	0.081	0.002	0.005	0.8	1.4	9.0	26.0	2670.
5	6	37	15	0.084	0.003	0.003	0.9	1.4	8.9	26.0	2670.
5	6	37	30	0.087	0.005	0.005	0.7	1.3	8.9	26.0	2670.
5	6	37	45	0.086	0.002	0.002	0.9	1.4	9.0	26.1	2660.
5	6	38	0	0.084	0.002	0.002	0.9	1.4	9.0	25.9	2670.
4	6	38	15	0.079	0.002	0.006	0.8	1.4	9.1	26.2	2650.
4	6	38	30	0.082	0.003	0.006	0.9	1.4	9.1	26.2	2660.

TULSA FLIGHT NUMBER 11 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPB	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
4	6	38	45	0.084	0.005	0.005	0.9	1.4	9.1	26.2	2660.
4	6	39	0	0.086	0.006	0.006	0.8	1.4	9.0	26.2	2670.
4	6	39	15	0.088	0.001	0.007	0.8	1.4	8.9	26.2	2680.
4	6	39	30	0.086	0.001	0.004	0.9	1.4	9.0	26.2	2670.
4	6	39	45	0.086	0.005	0.005	0.9	1.4	9.2	26.2	2640.
4	6	40	0	0.083	0.0	0.0	0.8	1.5	9.3	26.1	2680.
4	6	40	15	0.084	0.0	0.0	1.0	1.5	9.3	26.3	2660.
4	6	40	30	0.080	0.001	0.001	0.9	1.4	9.3	26.1	2650.
4	6	40	45	0.080	0.005	0.005	0.7	1.4	9.2	26.3	2660.
5	6	41	0	0.083	0.003	0.005	0.7	1.3	9.2	26.3	2680.
5	6	41	15	0.085	0.002	0.005	0.8	1.4	9.1	26.4	2680.
5	6	41	30	0.086	0.005	0.005	0.8	1.4	9.1	26.3	2660.
5	6	41	45	0.083	0.0	0.003	0.7	1.4	9.1	26.4	2680.
5	6	42	0	0.084	0.001	0.007	0.8	1.4	9.2	26.3	2690.
5	6	42	15	0.081	0.0	0.003	0.8	1.4	9.3	26.2	2680.
5	6	42	30	0.084	0.0	0.002	0.7	1.3	9.4	26.4	2690.
5	6	42	45	0.084	0.002	0.002	0.9	1.5	9.5	26.3	2680.
5	6	43	0	0.080	0.0	0.004	0.8	1.5	9.5	26.3	2680.
5	6	43	15	0.084	0.001	0.001	0.9	1.3	9.4	26.3	2680.
5	6	43	30	0.080	0.005	0.010	0.9	1.3	9.5	26.4	2690.
5	6	43	45	0.083	0.005	0.017	0.8	1.5	9.6	26.3	2680.
5	6	44	0	0.080	0.001	0.001	0.8	1.5	9.6	26.3	2680.
5	6	44	15	0.082	0.0	0.0	0.8	1.3	9.8	26.2	2690.
5	6	44	30	0.084	0.0	0.0	1.0	1.5	9.6	26.3	2660.
5	6	44	45	0.082	0.0	0.0	0.9	1.5	9.7	26.3	2680.
5	6	45	0	0.079	0.0	0.0	0.8	1.6	9.8	26.3	2680.
5	6	45	15	0.082	0.0	0.0	0.8	1.6	9.9	26.2	2680.
5	6	45	30	0.081	0.001	0.001	0.9	1.5	10.0	26.1	2680.
5	6	45	45	0.078	0.003	0.003	0.9	1.5	10.0	26.3	2700.
5	6	46	0	0.075	0.001	0.001	0.8	1.6	10.1	26.3	2700.
5	6	46	15	0.077	0.005	0.005	0.9	1.6	10.3	26.1	2690.
5	6	46	30	0.077	0.0	0.001	0.9	1.6	10.3	26.1	2680.
5	6	46	45	0.078	0.0	0.0	0.9	1.6	10.3	26.2	2690.
5	6	47	0	0.075	0.0	0.002	0.8	1.7	10.4	26.2	2680.
5	6	47	15	0.081	0.0	0.006	0.8	1.8	10.5	26.1	2700.
5	6	47	30	0.084	0.002	0.004	1.0	1.7	10.7	26.2	2680.
5	6	47	45	0.085	0.002	0.007	0.9	1.9	10.8	26.1	2710.
5	6	48	0	0.084	0.005	0.005	0.8	1.8	10.8	25.9	2680.
5	6	48	15	0.084	0.0	0.004	0.8	1.7	10.8	26.0	2700.
5	6	48	30	0.082	0.0	0.007	0.9	1.8	10.7	26.0	2690.
5	6	48	45	0.065	0.004	0.004	0.8	1.6	10.6	26.1	2690.
5	6	49	0	0.081	0.0	0.0	0.9	1.7	10.5	25.9	2710.
5	6	49	15	0.084	0.0	0.0	1.0	1.7	10.6	26.0	2710.
5	6	49	30	0.083	0.0	0.0	1.0	1.7	10.6	25.9	2710.
5	6	49	45	0.083	0.0	0.003	0.9	1.8	10.5	25.9	2710.
5	6	50	0	0.078	0.001	0.001	0.9	1.7	10.4	26.1	2690.
5	6	50	15	0.077	0.0	0.005	1.0	2.1	10.3	25.9	2680.
5	6	50	30	0.077	0.0	0.005	0.9	2.1	10.4	26.0	2690.
5	6	50	45	0.075	0.0	0.001	0.9	2.0	10.5	26.0	2690.
5	6	51	0	0.077	0.0	0.004	0.9	2.0	10.5	25.8	2710.

TULSA FLIGHT NUMBER 11 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	51	15	0.071	0.0	0.005	0.7	1.8	10.6	26.0	2710.
5	6	51	30	0.070	0.001	0.004	0.8	1.8	10.6	25.9	2680.
5	6	51	45	0.068	0.003	0.004	0.9	1.7	10.6	25.9	2680.
5	6	52	0	0.071	0.006	0.006	0.8	1.9	10.5	26.0	2700.
5	6	52	15	0.069	0.0	0.006	0.9	1.7	10.5	25.8	2710.
5	6	52	30	0.071	0.0	0.002	0.8	2.0	10.5	26.0	2670.
5	6	52	45	0.072	0.004	0.004	1.0	2.1	10.4	25.9	2690.
5	6	53	0	0.073	0.0	0.0	0.8	1.9	10.4	26.0	2690.
5	6	53	15	0.076	0.0	0.0	0.8	1.9	10.4	25.9	2700.
5	6	53	30	0.070	0.0	0.0	0.8	1.9	10.4	25.9	2700.
5	6	53	45	0.073	0.002	0.003	0.8	1.9	10.5	25.9	2700.
5	6	54	0	0.071	0.0	0.002	0.9	1.8	10.5	25.9	2690.
5	6	54	15	0.078	0.0	0.007	0.9	1.7	10.7	25.8	2680.
5	6	54	30	0.069	0.001	0.007	0.9	1.6	10.8	25.9	2710.
5	6	54	45	0.071	0.003	0.003	0.7	1.6	10.8	25.8	2700.
5	6	55	0	0.073	0.001	0.001	0.8	2.9	10.8	25.8	2700.
5	6	55	15	0.069	0.001	0.002	0.8	1.6	10.8	25.8	2710.
5	6	55	30	0.071	0.001	0.002	0.8	1.6	10.8	25.7	2710.
5	6	55	45	0.068	0.0	0.003	0.7	1.6	10.8	25.8	2710.
5	6	56	0	0.069	0.002	0.006	0.8	1.8	10.8	25.8	2700.
6	6	56	15	0.070	0.003	0.003	0.8	1.8	10.8	25.7	2690.
6	6	56	30	0.073	0.004	0.005	0.8	1.7	10.8	25.7	2680.
6	6	56	45	0.071	0.004	0.005	0.8	2.0	10.9	25.7	2660.
6	6	57	0	0.072	0.002	0.002	0.9	1.8	10.9	25.8	2710.
6	6	57	15	0.072	0.0	0.002	0.9	1.8	10.9	25.8	2710.
6	6	57	30	0.075	0.0	0.002	1.0	1.9	10.9	25.8	2680.
6	6	57	45	0.072	0.002	0.002	0.9	1.8	10.9	25.9	2680.
6	6	58	0	0.074	0.001	0.004	0.8	1.8	10.8	25.8	2690.
6	6	58	15	0.073	0.002	0.002	0.8	1.8	10.8	25.7	2680.
6	6	58	30	0.075	0.001	0.006	0.9	1.9	10.7	25.8	2710.
7	6	58	45	0.074	0.0	0.005	1.0	1.7	10.8	25.9	2720.
7	6	59	0	0.075	0.0	0.002	0.9	1.8	10.8	25.9	2710.
7	6	59	15	0.077	0.003	0.004	1.0	1.9	10.8	25.9	2720.
7	6	59	30	0.077	0.001	0.004	0.8	1.9	10.8	25.8	2690.
7	6	59	45	0.072	0.0	0.0	0.9	1.9	10.7	25.9	2710.
7	7	0	0	0.073	0.0	0.004	0.9	1.7	10.7	25.9	2710.
7	7	0	15	0.071	0.0	0.0	0.8	1.6	10.7	25.9	2710.
7	7	0	30	0.069	0.0	0.0	0.8	1.6	10.7	25.8	2710.
7	7	0	45	0.072	0.0	0.008	0.8	1.5	10.6	25.8	2710.
7	7	1	0	0.070	0.0	0.005	0.9	1.5	10.6	25.9	2710.
7	7	1	15	0.072	0.0	0.006	0.8	1.6	10.5	25.9	2710.
7	7	1	30	0.072	0.0	0.006	0.9	1.6	10.6	25.9	2710.
7	7	1	45	0.070	0.0	0.006	1.0	1.4	10.6	26.0	2710.
7	7	2	0	0.072	0.0	0.004	1.0	1.5	10.6	25.8	2710.
7	7	2	15	0.065	0.002	0.004	0.8	1.6	10.6	25.8	2710.
7	7	2	30	0.071	0.003	0.005	0.9	1.5	10.5	25.8	2710.
7	7	2	45	0.068	0.003	0.005	0.8	1.5	10.5	26.0	2710.
7	7	3	0	0.070	0.0	0.0	1.0	1.5	10.5	26.0	2710.
7	7	3	15	0.072	0.0	0.0	0.7	1.6	10.6	26.0	2710.
7	7	3	30	0.070	0.0	0.0	0.9	1.6	10.6	26.0	2710.

TULSA FLIGHT NUMBER 11 DATE: 9- 5

LEG	HR	MIN	SEC	OZONE PPM	CO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	7	3	45	0.072	0.0	0.0	0.8	1.7	10.5	25.8	2710.
7	7	4	0	0.076	0.0	0.0	0.9	1.8	10.4	25.8	2710.
7	7	4	15	0.078	0.0	0.0	1.0	1.8	10.5	26.0	2710.
7	7	4	30	0.086	0.001	0.001	1.0	1.8	10.4	25.9	2710.
7	7	4	45	0.086	0.0	0.0	1.0	1.6	10.6	25.8	2710.
7	7	5	0	0.089	0.0	0.0	1.0	1.8	10.8	26.0	2710.
7	7	5	15	0.086	0.0	0.0	1.1	1.8	10.9	26.0	2710.
7	7	5	30	0.086	0.0	0.0	1.0	1.8	10.9	25.8	2720.
7	7	5	45	0.086	0.0	0.0	1.0	1.8	10.9	26.0	2710.
7	7	6	0	0.089	0.0	0.001	0.9	1.9	10.9	25.8	2710.
7	7	6	15	0.092	0.0	0.0	1.0	1.8	10.7	25.8	2710.
7	7	6	30	0.080	0.0	0.0	0.9	1.6	10.5	25.8	2710.
7	7	6	45	0.077	0.0	0.003	0.9	1.5	10.3	26.0	2710.
7	7	7	0	0.078	0.0	0.001	0.9	1.7	10.2	26.1	2730.
7	7	7	15	0.077	0.0	0.0	1.0	1.4	10.1	25.8	2730.
7	7	7	30	0.083	0.0	0.0	0.8	1.5	10.1	26.0	2710.
7	7	7	45	0.080	0.006	0.006	0.8	1.5	10.1	26.1	2710.
7	7	8	0	0.080	0.004	0.004	0.9	1.5	10.1	26.1	2710.
7	7	8	15	0.075	0.0	0.007	0.9	1.4	10.1	26.1	2720.
7	7	8	30	0.076	0.0	0.005	0.9	1.3	10.1	25.9	2710.
7	7	8	45	0.080	0.0	0.0	0.8	1.4	10.0	26.0	2710.
7	7	9	0	0.081	0.0	0.0	1.0	1.3	9.9	26.0	2710.
7	7	9	15	0.079	0.0	0.0	0.7	1.4	9.8	26.1	2720.
7	7	9	30	0.081	0.004	0.004	0.9	1.4	9.8	26.2	2710.
7	7	9	45	0.082	0.003	0.003	0.9	1.3	9.7	26.2	2730.
7	7	10	0	0.083	0.006	0.015	1.0	1.2	9.6	26.2	2710.
7	7	10	15	0.079	0.008	0.013	0.8	1.3	9.6	26.2	2690.
7	7	10	30	0.080	0.003	0.014	0.9	1.3	9.6	26.2	2720.
7	7	10	45	0.083	0.001	0.001	0.8	1.3	9.6	26.2	2700.
7	7	11	0	0.079	0.0	0.0	0.9	1.4	9.6	26.1	2710.
7	7	11	15	0.085	0.001	0.004	0.9	1.4	9.6	26.2	2700.
7	7	11	30	0.083	0.0	0.0	0.8	1.3	9.5	26.3	2720.
7	7	11	45	0.085	0.0	0.0	0.8	2.1	9.4	26.2	2720.
7	7	12	0	0.080	0.0	0.0	0.8	1.3	9.4	26.0	2690.
7	7	12	15	0.082	0.0	0.0	1.0	1.2	9.4	26.2	2720.
7	7	12	30	0.087	0.0	0.0	0.9	1.3	9.4	26.3	2710.
7	7	12	45	0.082	0.0	0.0	0.8	1.3	9.4	26.3	2730.
7	7	13	0	0.082	0.001	0.001	0.8	1.3	9.5	26.2	2720.
7	7	13	15	0.085	0.004	0.004	0.8	1.2	9.2	26.3	2720.
7	7	13	30	0.085	0.001	0.001	0.7	1.3	9.1	26.3	2700.
7	7	13	45	0.084	0.0	0.0	0.9	1.3	9.0	26.3	2710.
7	7	14	0	0.088	0.0	0.002	0.7	1.2	8.9	26.3	2730.
7	7	14	15	0.081	0.002	0.004	0.8	1.2	9.0	26.3	2710.
7	7	14	30	0.088	0.0	0.004	0.8	1.2	9.3	26.4	2710.
S 2	7	23	0	0.078	0.0	0.005	0.7	1.5	9.8	26.1	2500.
S 2	7	23	15	0.074	0.0	0.006	0.8	1.5	10.0	26.2	2600.
S 2	7	23	30	0.076	0.0	0.001	0.7	1.3	10.0	26.2	2650.
S 2	7	23	45	0.074	0.0	0.0	0.8	1.5	10.0	25.8	2750.
S 2	7	24	0	0.076	0.0	0.0	0.7	1.3	9.9	25.8	2850.
S 2	7	24	15	0.085	0.0	0.0	0.8	1.3	9.8	25.7	2900.

TULSA FLIGHT NUMBER 11 DATE: 9- 5

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	24	30	0.079	0.0	0.003	0.7	1.3	9.7	25.8	3000.
S 2	7	24	45	0.076	0.0	0.0	0.6	1.1	9.6	25.5	3050.
S 2	7	25	0	0.081	0.0	0.005	0.8	1.2	9.6	25.5	3150.
S 2	7	25	15	0.080	0.002	0.002	0.7	1.2	9.6	25.4	3200.
S 2	7	25	30	0.075	0.001	0.001	0.8	1.4	9.6	25.4	3300.
S 2	7	25	45	0.075	0.0	0.0	0.8	1.3	9.6	25.3	3350.
S 2	7	26	0	0.077	0.0	0.0	0.8	1.3	9.6	24.9	3450.
S 2	7	26	15	0.072	0.001	0.001	0.9	1.3	9.6	24.9	3500.
S 2	7	26	30	0.078	0.001	0.001	0.8	1.2	9.5	24.7	3550.
S 2	7	26	45	0.072	0.0	0.0	0.8	1.2	9.5	24.6	3650.
S 2	7	27	0	0.075	0.0	0.001	0.8	1.2	9.4	24.4	3700.
S 2	7	27	15	0.079	0.0	0.001	0.9	1.3	9.3	24.2	3800.
S 2	7	27	30	0.073	0.0	0.0	0.8	1.7	9.3	23.9	3850.
S 2	7	27	45	0.075	0.0	0.002	0.8	1.3	9.3	23.7	3950.
S 2	7	28	0	0.074	0.0	0.002	0.8	1.3	9.3	23.5	4000.
S 2	7	28	15	0.079	0.0	0.006	1.0	1.2	9.3	23.5	4050.
S 2	7	28	30	0.100	0.0	0.004	0.8	1.2	9.1	23.3	4150.
S 2	7	28	45	0.076	0.001	0.003	0.7	1.8	8.9	23.1	4200.
S 2	7	29	0	0.077	0.0	0.005	0.8	2.3	8.6	22.9	4300.
S 2	7	29	15	0.073	0.001	0.007	0.9	1.2	8.3	22.7	4350.
S 2	7	29	30	0.072	0.0	0.004	0.8	1.2	8.0	22.6	4450.
S 2	7	29	45	0.073	0.0	0.0	0.8	1.3	7.8	22.3	4500.
S 2	7	30	0	0.073	0.0	0.005	0.8	1.2	7.8	22.1	4550.
S 2	7	30	15	0.076	0.0	0.009	0.7	1.2	7.8	21.7	4650.
S 2	7	30	30	0.074	0.0	0.009	0.8	1.2	7.8	21.6	4700.
S 2	7	30	45	0.072	0.0	0.0	0.8	1.1	7.8	21.4	4800.
S 2	7	31	0	0.077	0.0	0.0	0.9	1.0	7.8	21.1	4850.
S 2	7	31	15	0.077	0.001	0.001	0.8	0.9	7.7	21.1	4950.
S 2	7	31	30	0.073	0.001	0.002	0.9	1.0	7.6	20.8	5000.
S 2	7	31	45	0.076	0.0	0.004	0.8	1.0	7.5	20.4	5050.
S 2	7	32	0	0.075	0.001	0.004	0.8	1.0	7.3	20.3	5150.
S 2	7	32	15	0.075	0.0	0.004	0.7	0.8	7.2	20.2	5200.
S 2	7	32	30	0.073	0.0	0.005	0.7	0.8	7.1	19.8	5300.
S 2	7	32	45	0.072	0.0	0.0	0.7	0.9	7.1	19.8	5350.
S 2	7	33	0	0.074	0.0	0.0	0.6	0.7	7.0	19.5	5450.
S 2	7	33	15	0.069	0.0	0.002	0.8	0.6	7.1	19.4	5500.
S 2	7	33	30	0.077	0.0	0.004	0.7	0.8	7.0	19.2	5550.
S 2	7	33	45	0.074	0.001	0.001	0.7	0.8	6.9	19.0	5650.
S 2	7	34	0	0.075	0.002	0.003	0.7	0.9	6.7	18.6	5700.
S 2	7	34	15	0.067	0.0	0.005	0.7	0.7	6.5	18.6	5800.
S 2	7	34	30	0.069	0.0	0.002	0.8	0.8	6.4	18.1	5850.
S 2	7	34	45	0.069	0.0	0.004	0.7	0.7	6.3	18.0	5950.
S 2	7	35	0	0.072	0.0	******	0.8	0.7	6.1	17.9	6000.
S 2	7	35	15	0.073	0.0	0.001	0.8	0.7	5.9	17.7	6150.
S 2	7	35	30	0.071	0.004	0.004	0.8	0.7	5.8	17.4	6350.
S 2	7	36	45	0.070	0.0	0.006	0.8	0.6	5.5	15.9	6500.
S 2	7	37	0	0.071	0.0	0.006	0.7	0.6	5.3	15.7	6650.
S 2	7	37	15	0.071	0.0	0.009	0.7	0.5	5.3	15.2	6850.
S 2	7	37	30	0.067	0.0	0.010	0.7	0.6	5.5	15.3	7000.
S 2	7	37	45	0.070	0.001	0.004	0.8	0.5	5.2	15.0	7050.

TULSA FLIGHT NUMBER 11 DATE: 9- 5

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	38	0	0.069	0.0	0.007	0.8	0.5	4.2	14.7	7150.
S 2	7	38	15	0.064	0.003	0.008	0.7	0.4	2.5	14.5	7250.
S 2	7	38	30	0.055	0.001	0.005	0.6	0.2	1.1	14.1	7300.
S 2	7	38	45	0.061	0.001	0.003	0.7	0.1	1.0	14.0	7400.
S 2	7	39	0	0.066	0.0	0.001	0.7	0.2	1.2	13.9	7450.
S 2	7	39	15	0.062	0.0	0.0	0.8	0.1	1.3	13.7	7550.
S 2	7	39	30	0.063	0.0	0.0	0.7	0.2	1.4	13.3	7600.
S 2	7	39	45	0.061	0.0	0.0	0.6	0.3	1.5	13.0	7700.
S 2	7	40	0	0.061	0.0	0.0	0.7	0.2	1.6	13.0	7750.
S 2	7	40	15	0.061	0.001	0.002	0.7	0.2	1.5	12.9	7850.
S 2	7	40	30	0.059	0.0	0.002	0.8	0.1	1.0	12.6	7900.
S 2	7	40	45	0.062	0.0	0.004	0.8	0.2	0.7	12.5	8000.
S 2	7	41	0	0.059	0.0	0.006	0.9	0.2	0.6	12.1	8100.
S 2	7	41	15	0.065	0.0	0.002	0.9	0.1	0.3	12.0	8200.
S 2	7	41	30	0.065	0.0	0.004	0.9	0.2	-1.2	11.7	8250.
S 2	7	41	45	0.058	0.0	0.0	0.7	0.0	-3.3	11.5	8350.
S 2	7	42	0	0.056	0.0	0.0	0.6	0.0	-4.8	11.3	8450.
S 2	7	42	15	0.077	0.0	0.0	0.5	0.0	-5.3	11.1	8550.
S 2	7	42	30	0.058	0.0	0.001	0.6	0.1	-5.2	10.9	8650.
S 2	7	42	45	0.056	0.0	0.004	0.6	0.0	-5.1	10.8	8750.
S 2	7	43	0	0.059	0.0	0.0	0.7	0.1	-5.2	10.5	8800.
S 2	7	43	15	0.065	0.0	0.002	0.7	0.1	-5.6	10.3	8900.
S 2	7	43	30	0.067	0.0	0.004	0.6	0.1	-6.0	10.2	9000.
S 2	7	43	45	0.062	0.0	0.003	0.7	0.1	-6.2	10.2	9050.
S 2	7	44	0	0.074	0.0	0.004	0.9	0.0	-6.3	9.7	9150.
S 2	7	44	15	0.076	0.008	0.014	1.0	0.2	-6.5	9.8	9250.
S 2	7	44	30	0.072	0.0	0.008	1.0	0.2	-7.1	9.7	9300.
S 2	7	44	45	0.078	0.0	0.005	1.0	0.2	-7.5	9.6	9400.
S 2	7	45	0	0.073	0.0	0.004	0.9	0.1	-8.1	9.4	9450.
S 2	7	45	15	0.086	0.0	0.002	1.2	0.3	-9.1	9.1	9550.
S 2	7	45	30	0.079	0.0	0.004	0.6	0.0	-10.9	9.1	9600.
S 2	7	45	45	0.081	0.0	0.005	0.6	0.0	-12.7	8.9	9700.
S 2	7	46	0	0.075	0.0	0.003	0.6	0.0	-13.8	8.8	9750.
S 2	7	46	15	0.072	0.0	0.007	0.6	0.0	-14.4	8.9	9850.
S 2	7	46	30	0.076	0.0	0.005	0.5	0.0	-14.6	8.8	9900.
S 2	7	46	45	0.075	0.001	0.005	0.5	0.0	-14.7	8.6	10000.

TULSA FLIGHT NUMBER 12 DATE: 9- 3- 1977

LEG	HR : MIN : SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12 : 31 : 30	0.094	0.0	0.0	0.9	6.1	11.7	26.7	2500.
1	12 : 31 : 45	0.095	0.0	0.0	1.0	6.4	11.6	26.6	2500.
1	12 : 32 : 0	0.093	0.0	0.005	1.1	6.4	11.6	26.8	2500.
1	12 : 32 : 15	0.089	0.0	0.008	1.0	6.1	11.6	26.6	2500.
1	12 : 32 : 30	0.093	0.0	0.0	0.9	5.9	11.9	26.8	2500.
1	12 : 32 : 45	0.082	0.0	0.002	1.0	11.1	12.2	26.3	2500.
1	12 : 33 : 0	0.094	0.0	0.008	1.0	9.9	12.4	26.3	2500.
1	12 : 33 : 15	0.081	0.0	0.006	1.6	15.1	12.4	26.4	2500.
1	12 : 33 : 30	0.095	0.0	0.007	1.4	16.9	12.3	26.5	2500.
1	12 : 33 : 45	0.088	0.0	0.012	1.0	16.2	12.1	26.4	2500.
1	12 : 34 : 0	0.101	0.0	0.011	1.0	23.1	12.2	26.3	2500.
1	12 : 34 : 15	0.103	0.0	0.006	1.0	19.7	12.4	26.5	2500.
1	12 : 34 : 30	0.108	0.0	0.012	1.0	25.2	12.5	26.4	2500.
1	12 : 34 : 45	0.108	0.0	0.014	0.9	20.9	12.5	26.4	2500.
1	12 : 35 : 0	0.105	0.0	0.006	1.0	17.0	12.6	26.2	2500.
1	12 : 35 : 15	0.095	0.0	0.005	0.9	8.4	12.5	26.3	2500.
1	12 : 35 : 30	0.102	0.0	0.003	1.0	10.2	12.4	26.4	2500.
1	12 : 35 : 45	0.097	0.0	0.003	0.9	9.9	12.1	26.4	2500.
1	12 : 36 : 0	0.098	0.0	0.005	0.9	10.6	12.2	26.5	2500.
1	12 : 36 : 15	0.098	0.0	0.003	1.1	8.8	12.6	26.4	2500.
1	12 : 36 : 30	0.097	0.0	0.005	0.9	9.6	12.9	29.0	2500.
1	12 : 36 : 45	0.097	0.0	0.002	1.1	10.3	12.9	26.7	2500.
1	12 : 37 : 0	0.097	0.0	0.0	1.0	10.1	12.8	26.4	2500.
1	12 : 37 : 15	0.093	0.0	0.001	1.0	8.4	12.5	26.4	2500.
1	12 : 37 : 30	0.091	0.0	0.0	0.9	9.3	12.3	26.5	2500.
1	12 : 37 : 45	0.092	0.0	0.0	1.1	8.9	12.4	26.4	2500.
1	12 : 38 : 0	0.091	0.0	0.0	1.0	9.9	13.0	26.6	2500.
1	12 : 38 : 15	0.091	0.0	0.0	1.0	8.9	13.5	26.4	2500.
1	12 : 38 : 30	0.093	0.0	0.0	1.0	10.1	13.8	26.5	2500.
1	12 : 38 : 45	0.096	0.0	0.0	1.1	11.0	14.0	26.7	2500.
1	12 : 39 : 0	0.092	0.0	0.0	1.0	9.9	14.0	26.6	2500.
1	12 : 39 : 15	0.098	0.0	0.001	1.1	13.1	14.0	26.7	2500.
1	12 : 39 : 30	0.093	0.0	0.0	1.0	12.5	13.7	26.4	2500.
1	12 : 39 : 45	0.092	0.0	0.005	0.9	9.3	13.4	26.6	2500.
1	12 : 40 : 0	0.095	0.0	0.008	0.9	12.6	13.2	26.2	2500.
1	12 : 40 : 15	0.099	0.0	0.006	1.1	12.9	13.1	26.5	2500.
1	12 : 40 : 30	0.096	0.0	0.008	0.8	10.8	12.8	26.5	2500.
1	12 : 40 : 45	0.099	0.0	0.011	0.9	18.4	12.6	26.2	2500.
1	12 : 41 : 0	0.109	0.0	0.003	1.0	27.8	12.8	26.5	2500.
1	12 : 41 : 15	0.116	0.0	0.003	0.9	27.6	13.2	26.5	2500.
1	12 : 41 : 30	0.102	0.0	0.005	1.1	23.8	13.5	26.4	2500.
1	12 : 41 : 45	0.108	0.0	0.009	1.5	31.7	13.6	26.5	2500.
1	12 : 42 : 0	0.112	0.0	0.013	1.0	8.6	13.4	26.4	2500.
1	12 : 42 : 15	0.102	0.0	0.009	0.9	2.7	13.2	26.7	2500.
1	12 : 42 : 30	0.123	0.0	0.008	0.9	8.4	13.0	26.6	2500.
1	12 : 42 : 45	0.137	0.0	0.012	0.9	10.6	12.9	26.7	2500.
1	12 : 43 : 0	0.111	0.0	0.014	0.9	3.6	12.8	26.5	2500.
1	12 : 43 : 15	0.113	0.0	0.007	0.8	10.2	12.6	26.4	2500.
1	12 : 43 : 30	0.138	0.0	0.0	1.1	13.0	12.9	26.4	2500.
1	12 : 43 : 45	0.149	0.0	0.0	1.0	19.0	13.1	26.7	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	44	0	0.133	0.0	0.001	0.8	11.3	12.7	26.4	2500.
1	12	44	15	0.140	0.0	0.0	1.0	14.5	12.1	26.8	2500.
1	12	44	30	0.132	0.0	0.004	1.1	12.2	12.1	26.7	2500.
1	12	44	45	0.130	0.0	0.006	0.9	13.7	12.3	26.8	2500.
1	12	45	0	0.146	0.0	0.006	1.0	18.4	12.8	26.7	2500.
1	12	45	15	0.176	0.0	0.001	1.1	23.1	13.2	26.6	2500.
1	12	45	30	0.190	0.0	0.002	1.2	24.1	13.4	26.7	2500.
1	12	45	45	0.177	0.0	0.0	1.2	20.9	13.2	26.6	2500.
1	12	46	0	0.189	0.0	0.009	1.2	24.3	13.2	26.6	2500.
1	12	46	15	0.187	0.0	0.007	1.1	22.0	13.3	26.8	2500.
1	12	46	30	0.190	0.0	0.009	1.1	26.1	13.3	26.8	2500.
1	12	46	45	0.159	0.0	0.002	1.1	22.4	13.3	26.7	2500.
1	12	47	0	0.152	0.0	0.007	1.2	25.0	13.2	26.8	2500.
1	12	47	15	0.150	0.0	0.003	1.0	24.9	13.3	26.8	2500.
1	12	47	30	0.131	0.0	0.00	1.0	22.5	13.3	26.9	2500.
1	12	47	45	0.133	0.0	0.0	1.0	20.4	13.4	26.8	2500.
1	12	48	0	0.101	0.0	0.00	0.9	4.8	13.4	27.0	2500.
1	12	48	15	0.106	0.0	0.00	0.9	3.8	13.6	26.9	2500.
1	12	48	30	0.108	0.0	0.003	1.0	4.4	13.5	27.0	2500.
1	12	48	45	0.109	0.0	0.003	1.0	4.4	13.4	26.8	2500.
1	12	49	0	0.116	0.0	0.002	0.9	5.1	13.3	27.0	2500.
1	12	49	15	0.111	0.0	0.001	0.9	3.5	13.3	26.7	2500.
1	12	49	30	0.103	0.0	0.002	0.8	3.2	13.4	27.0	2500.
1	12	49	45	0.104	0.0	0.007	1.0	4.1	13.5	27.0	2500.
1	12	50	0	0.105	0.0	0.0	1.0	4.3	13.6	26.8	2500.
1	12	50	15	0.098	0.0	0.001	0.8	3.8	13.3	26.7	2500.
1	12	50	30	0.095	0.0	0.001	1.0	2.2	12.9	27.0	2500.
1	12	50	45	0.094	0.0	0.001	0.9	1.5	12.7	27.1	2500.
1	12	51	0	0.096	0.0	0.0	0.9	1.7	12.9	27.0	2500.
1	12	51	15	0.096	0.0	0.001	0.8	1.8	13.1	27.0	2500.
1	12	51	30	0.098	0.0	0.005	0.9	1.6	13.2	27.0	2500.
1	12	51	45	0.098	0.0	0.002	0.9	1.8	13.1	26.8	2500.
1	12	52	0	0.102	0.0	0.004	0.8	2.8	12.8	26.9	2500.
1	12	52	15	0.096	0.0	0.002	0.9	1.7	12.5	26.9	2500.
1	12	52	30	0.106	0.0	0.006	0.7	1.8	12.3	26.9	2500.
1	12	52	45	0.098	0.0	0.0	1.0	1.4	12.2	27.0	2500.
1	12	53	0	0.100	0.0	0.001	1.0	1.9	12.4	26.9	2500.
1	12	53	15	0.101	0.0	0.0	0.9	2.0	12.4	27.1	2500.
1	12	53	30	0.099	0.0	0.005	0.9	1.5	12.4	26.9	2500.
1	12	53	45	0.097	0.0	0.015	0.8	1.4	12.3	27.1	2500.
1	12	54	0	0.097	0.0	0.010	0.8	1.3	12.2	26.9	2500.
1	12	54	15	0.100	0.0	0.009	0.7	0.9	12.0	27.2	2500.
1	12	54	30	0.097	0.0	0.005	0.8	1.3	12.1	26.9	2500.
1	12	54	45	0.096	0.0	0.005	0.8	1.2	12.0	27.2	2500.
1	12	55	0	0.097	0.0	0.009	0.9	1.3	12.0	27.2	2500.
1	12	55	15	0.098	0.0	0.010	0.8	1.5	11.9	27.2	2500.
1	12	55	30	0.100	0.0	0.0	0.8	1.3	11.7	27.1	2500.
1	12	55	45	0.093	0.0	0.0	0.9	1.2	11.6	27.1	2500.
1	12	56	0	0.098	0.0	0.001	0.8	2.2	11.4	27.2	2500.
1	12	56	15	0.098	0.0	0.0	0.8	1.3	11.1	27.2	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

DEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	56	30	0.096	0.0	0.0	0.8	1.0	10.8	27.7	2500.
1	12	56	45	0.092	0.0	0.003	0.8	0.9	10.5	27.0	2500.
1	12	57	0	0.093	0.0	0.003	0.8	0.9	10.3	27.2	2500.
1	12	57	15	0.090	0.0	0.004	0.9	0.5	10.4	27.1	2500.
1	12	57	30	0.092	0.0	0.0	0.9	1.3	10.4	28.1	2500.
1	12	57	45	0.090	0.0	0.001	0.9	1.1	10.4	27.9	2500.
1	12	58	0	0.099	0.0	0.0	0.7	1.7	10.4	28.1	2500.
1	12	58	15	0.097	0.0	0.003	0.8	1.1	10.7	28.1	2500.
1	12	58	30	0.092	0.0	0.0	0.8	0.9	10.9	27.3	2500.
1	12	58	45	0.099	0.0	0.007	0.8	2.4	11.0	28.2	2500.
2	12	59	0	0.104	0.0	0.002	0.9	3.1	11.0	27.5	2500.
2	12	59	15	0.103	0.0	0.0	0.8	4.9	11.2	27.4	2500.
2	12	59	30	0.104	0.0	0.007	0.8	3.5	11.4	27.6	2500.
2	12	59	45	0.100	0.0	0.0	0.8	2.3	11.6	27.6	2500.
2	13	0	0	0.108	0.0	0.005	1.0	2.9	11.7	27.4	2500.
2	13	0	15	0.107	0.0	0.013	0.9	3.3	11.6	27.6	2500.
2	13	0	30	0.101	0.0	0.006	0.9	2.8	11.3	27.6	2500.
2	13	0	45	0.097	0.0	0.001	0.8	1.8	11.0	27.3	2500.
2	13	1	0	0.102	0.0	0.003	0.8	1.5	10.8	27.4	2500.
2	13	1	15	0.092	0.0	0.003	0.7	0.9	10.8	28.4	2500.
2	13	1	30	0.089	0.0	0.007	0.9	0.8	11.2	27.5	2500.
2	13	1	45	0.098	0.0	0.006	0.9	1.1	11.7	27.5	2500.
3	13	2	0	0.094	0.0	0.006	0.9	0.9	11.9	27.4	2500.
3	13	2	15	0.094	0.001	0.009	0.9	0.9	11.8	27.3	2500.
3	13	2	30	0.094	0.0	0.013	0.9	0.9	11.9	27.5	2500.
3	13	2	45	0.096	0.0	0.010	0.8	1.9	11.9	27.4	2500.
3	13	3	0	0.099	0.0	0.006	0.8	1.8	11.8	27.3	2500.
3	13	3	15	0.097	0.0	0.008	0.7	1.9	11.4	27.4	2500.
3	13	3	30	0.095	0.0	0.002	0.8	1.5	11.4	27.4	2500.
3	13	3	45	0.090	0.0	0.0	0.7	1.0	11.6	27.2	2500.
3	13	4	0	0.094	0.0	0.0	0.7	1.7	11.7	27.3	2500.
3	13	4	15	0.088	0.0	0.005	0.8	1.2	11.6	27.3	2500.
3	13	4	30	0.089	0.0	0.0	0.8	1.1	11.4	27.2	2500.
3	13	4	45	0.087	0.001	0.001	0.8	0.7	11.4	27.4	2500.
3	13	5	0	0.087	0.0	0.008	0.8	0.9	11.6	27.5	2500.
3	13	5	15	0.087	0.0	0.003	0.8	0.8	11.7	27.6	2500.
3	13	5	30	0.087	0.0	0.008	0.8	0.7	11.7	27.6	2500.
3	13	5	45	0.088	0.0	0.003	0.8	1.1	11.8	27.4	2500.
3	13	6	0	0.085	0.0	0.007	0.9	1.5	11.9	27.5	2500.
3	13	6	15	0.090	0.0	0.007	0.8	1.2	12.0	27.4	2500.
3	13	6	30	0.088	0.0	0.012	0.8	0.9	11.8	27.6	2500.
3	13	6	45	0.085	0.0	0.006	0.8	0.9	11.5	27.4	2500.
3	13	7	0	0.082	0.0	0.002	0.9	0.4	11.1	27.4	2500.
3	13	7	15	0.089	0.0	0.001	0.8	0.7	11.5	27.5	2500.
3	13	7	30	0.085	0.0	0.012	0.9	0.6	11.6	27.4	2500.
3	13	7	45	0.085	0.0	0.010	0.8	0.8	11.8	27.4	2500.
3	13	8	0	0.085	0.0	0.005	0.8	0.7	11.7	27.3	2500.
3	13	8	15	0.086	0.0	0.007	0.7	0.9	11.7	27.4	2500.
3	13	8	30	0.088	0.0	0.007	0.7	0.5	11.8	27.5	2500.
3	13	8	45	0.085	0.0	0.0	0.9	0.7	11.9	27.3	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	13	9	0	0.086	0.0	0.004	0.9	0.6	11.9	27.1	2500.
3	13	9	15	0.084	0.0	0.001	0.9	0.6	11.7	27.8	2500.
3	13	9	30	0.090	0.0	0.007	0.8	0.9	11.6	27.1	2500.
3	13	9	45	0.083	0.0	0.006	0.8	0.6	11.4	28.0	2500.
3	13	10	0	0.087	0.0	0.016	0.7	0.6	11.5	28.1	2500.
3	13	10	15	0.086	0.007	0.007	0.9	0.8	11.8	27.9	2500.
3	13	10	30	0.086	0.0	0.008	0.8	0.8	12.1	27.8	2500.
3	13	10	45	0.089	0.0	0.010	0.8	0.8	12.3	27.9	2500.
3	13	11	0	0.088	0.0	0.006	0.7	0.9	12.7	26.9	2500.
3	13	11	15	0.085	0.0	0.003	0.8	1.1	12.7	27.9	2500.
3	13	11	30	0.087	0.0	0.004	0.7	0.9	12.6	27.9	2500.
3	13	11	45	0.091	0.0	0.001	0.7	1.2	12.3	27.7	2500.
3	13	12	0	0.089	0.0	0.006	0.8	1.1	12.3	27.7	2500.
3	13	12	15	0.091	0.0	0.005	0.9	1.1	12.9	27.1	2500.
3	13	12	30	0.100	0.0	0.006	0.9	2.6	13.4	27.7	2500.
3	13	12	45	0.108	0.0	0.004	1.0	2.7	13.8	27.0	2500.
3	13	13	0	0.109	0.0	0.0	1.0	3.5	13.8	27.6	2500.
3	13	13	15	0.115	0.0	0.0	1.0	4.0	13.6	27.0	2500.
3	13	13	30	0.108	0.0	0.001	0.9	4.2	13.3	27.6	2500.
3	13	13	45	0.118	0.0	0.006	1.0	3.8	13.3	27.5	2500.
3	13	14	0	0.124	0.0	0.008	0.9	5.4	13.3	27.6	2500.
3	13	14	15	0.121	0.001	0.007	1.0	6.4	13.2	27.6	2500.
3	13	14	30	0.120	0.0	0.006	0.9	7.3	13.1	27.6	2500.
3	13	14	45	0.135	0.0	0.001	1.1	6.7	13.2	27.4	2500.
3	13	15	0	0.166	0.0	0.006	1.1	12.5	13.4	27.5	2500.
3	13	15	15	0.185	0.0	0.006	1.2	11.9	13.7	27.5	2500.
3	13	15	30	0.207	0.0	0.009	1.1	14.6	14.0	27.6	2500.
3	13	15	45	0.195	0.0	0.006	1.1	14.0	14.2	27.5	250 .
3	13	16	0	0.194	0.0	0.006	1.2	14.9	14.3	27.5	2500.
3	13	16	15	0.189	0.0	0.008	1.1	11.1	14.2	27.3	2500.
3	13	16	30	0.185	0.0	0.010	1.0	12.6	14.2	27.4	2500.
3	13	16	45	0.175	0.0	0.017	1.2	10.5	14.4	27.2	2500.
3	13	17	0	0.167	0.006	0.013	1.0	11.0	14.7	27.2	2500.
3	13	17	15	0.156	0.0	0.012	1.0	10.5	14.9	27.5	2500.
3	13	17	30	0.149	0.0	0.005	1.0	8.2	14.9	27.4	2500.
3	13	17	45	0.143	0.0	0.0	1.1	8.0	14.8	27.2	2500.
4	13	18	0	0.143	0.0	0.010	1.0	7.4	14.6	27.4	2500.
4	13	18	15	0.136	0.0	0.002	1.1	7.4	14.3	26.5	2500.
4	13	18	30	0.135	0.0	0.004	1.0	7.0	13.9	27.3	2500.
4	13	18	45	0.123	0.0	0.008	1.1	5.1	13.7	27.3	2500.
4	13	19	0	0.121	0.0	0.003	1.0	4.8	13.6	27.0	2500.
4	13	19	15	0.130	0.0	0.015	1.0	5.9	13.5	26.1	2500.
4	13	19	30	0.107	0.0	0.020	1.1	4.0	13.4	26.2	2500.
4	13	19	45	0.112	0.0	0.009	0.9	4.2	13.5	26.2	2500.
5	13	20	0	0.118	0.0	0.011	1.1	6.2	13.5	26.8	2500.
5	13	20	15	0.115	0.0	0.009	1.0	4.8	13.3	27.0	2500.
5	13	20	30	0.115	0.0	0.009	0.9	4.3	13.3	25.9	2500.
5	13	20	45	0.094	0.0	0.011	1.1	2.6	13.4	26.9	2500.
5	13	21	0	0.114	0.0	0.005	0.8	4.1	13.7	27.0	2500.
5	13	21	15	0.115	0.0	0.008	1.0	4.8	13.6	27.0	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 5

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	13	21	30	0.104	0.0	0.015	0.9	2.9	13.3	26.2	2500.
5	13	21	45	0.106	0.002	0.003	0.9	4.1	13.2	27.0	2500.
5	13	22	0	0.116	0.0	0.005	1.2	4.8	13.3	27.0	2500.
5	13	22	15	0.096	0.0	0.005	0.9	1.2	13.2	26.1	2500.
5	13	22	30	0.107	0.0	0.006	0.9	3.5	13.1	27.0	2500.
5	13	22	45	0.109	0.0	0.006	0.9	3.2	12.8	27.1	2500.
5	13	23	0	0.086	0.0	0.009	0.9	1.0	12.2	26.9	2500.
5	13	23	15	0.113	0.0	0.011	0.8	2.5	12.0	27.0	2500.
5	13	23	30	0.112	0.0	0.008	0.9	2.3	12.5	27.1	2500.
5	13	23	45	0.121	0.0	0.007	1.1	4.4	13.1	26.4	2500.
5	13	24	0	0.132	0.0	0.001	1.0	4.6	13.8	27.2	2500.
5	13	24	15	0.137	0.0	0.010	1.0	6.1	14.3	26.3	2500.
5	13	24	30	0.135	0.0	0.005	1.1	6.6	14.5	27.1	2500.
5	13	24	45	0.123	0.0	0.003	1.0	7.3	14.2	27.1	2500.
5	13	25	0	0.137	0.0	0.0	0.9	7.7	13.9	27.0	2500.
5	13	25	15	0.129	0.0	0.004	1.1	6.1	13.6	27.1	2500.
5	13	25	30	0.142	0.0	0.002	1.1	7.0	13.6	27.1	2500.
5	13	25	45	0.145	0.0	0.002	0.9	6.1	13.5	27.0	2500.
5	13	26	0	0.144	0.0	0.006	1.0	6.7	13.6	26.9	2500.
5	13	26	15	0.124	0.0	0.002	0.9	4.2	13.7	26.8	2500.
5	13	26	30	0.157	0.0	0.007	1.1	7.2	14.0	26.2	2500.
5	13	26	45	0.164	0.0	0.003	1.1	8.2	14.1	26.9	2500.
5	13	27	0	0.153	0.0	0.006	1.1	6.1	14.0	26.9	2500.
5	13	27	15	0.125	0.0	0.004	1.1	6.9	13.6	26.9	2500.
5	13	27	30	0.152	0.0	0.010	1.1	7.2	13.2	26.9	2500.
5	13	27	45	0.125	0.0	0.008	0.9	4.8	13.0	26.9	2500.
5	13	28	0	0.104	0.0	0.005	1.0	2.6	12.7	27.1	2500.
5	13	28	15	0.093	0.0	0.0	0.9	1.5	12.7	27.0	2500.
5	13	28	30	0.093	0.0	0.003	0.9	1.4	12.7	27.1	2500.
5	13	28	45	0.094	0.0	0.005	0.9	1.7	12.5	26.9	2500.
5	13	29	0	0.095	0.006	******	0.9	1.5	12.1	27.1	2500.
5	13	29	15	0.092	0.005	0.005	0.8	1.9	12.1	27.1	2500.
5	13	29	30	0.092	0.0	0.011	0.8	2.1	12.3	27.1	2500.
5	13	29	45	0.095	0.0	0.006	0.8	0.9	12.5	27.3	2500.
5	13	30	0	0.096	0.0	0.003	0.9	1.0	12.9	27.1	2500.
5	13	30	15	0.093	0.0	0.004	0.8	0.8	13.2	27.2	2500.
5	13	30	30	0.089	0.0	0.002	0.9	0.9	13.2	27.3	2500.
5	13	30	45	0.085	0.0	0.0	1.0	0.8	13.0	27.3	2500.
5	13	31	0	0.087	0.0	0.0	0.9	0.7	12.5	27.2	2500.
5	13	31	15	0.086	0.0	0.0	0.8	0.7	12.1	27.3	2500.
5	13	31	30	0.089	0.0	0.0	0.9	0.8	12.1	26.5	2500.
5	13	31	45	0.083	0.0	0.0	0.9	0.8	11.9	27.4	2500.
5	13	32	0	0.083	0.0	0.0	0.8	0.4	11.7	27.6	2500.
5	13	32	15	0.083	0.0	0.0	0.9	0.4	11.8	27.3	2500.
5	13	32	30	0.080	0.0	0.0	0.9	0.6	12.1	27.6	2500.
5	13	32	45	0.082	0.0	0.005	1.0	0.4	12.1	27.6	2500.
5	13	33	0	0.082	0.0	0.010	0.9	0.4	11.8	27.7	2500.
5	13	33	15	0.086	0.0	0.0	0.9	0.4	11.5	27.8	2500.
5	13	33	30	0.083	0.0	0.0	0.8	0.2	11.4	26.9	2500.
5	13	33	45	0.081	0.0	0.002	0.9	0.1	11.4	27.8	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	13	34	0	0.081	0.0	0.011	0.9	0.4	11.5	27.5	2500.
5	13	34	15	0.080	0.0	0.004	0.8	0.4	11.4	27.1	2500.
5	13	34	30	0.083	0.0	0.0	0.8	0.4	11.1	26.9	2500.
5	13	34	45	0.087	0.0	0.001	0.9	0.3	11.0	27.0	2500.
5	13	35	0	0.086	0.0	0.0	0.8	0.2	10.9	27.9	2500.
5	13	35	15	0.084	0.0	0.003	0.8	0.7	10.7	28.0	2500.
5	13	35	30	0.083	0.0	0.0	0.8	0.4	10.7	27.8	2500.
5	13	35	45	0.087	0.0	0.0	0.9	0.6	10.9	28.0	2500.
5	13	36	0	0.088	0.0	0.0	0.8	0.7	11.0	28.1	2500.
5	13	36	15	0.084	0.0	0.002	0.7	0.5	10.8	28.3	2500.
6	13	36	30	0.085	0.0	0.003	0.9	0.5	10.6	27.4	2500.
6	13	36	45	0.084	0.0	0.005	0.9	0.5	10.3	27.4	2500.
6	13	37	0	0.086	0.0	0.007	0.7	0.4	10.6	27.5	2500.
6	13	37	15	0.083	0.0	0.002	0.8	0.3	11.1	28.2	2500.
6	13	37	30	0.078	0.0	0.003	0.8	0.6	11.3	28.4	2500.
6	13	37	45	0.080	0.0	0.012	0.8	0.3	11.2	28.2	2500.
6	13	38	0	0.083	0.0	0.011	0.9	0.2	11.1	27.4	2500.
6	13	38	15	0.082	0.0	0.012	1.0	0.3	11.2	28.3	2500.
6	13	38	30	0.083	0.0	0.006	0.8	0.4	11.1	28.3	2500.
6	13	38	45	0.086	0.0	0.012	0.7	0.3	11.0	27.5	2500.
6	13	39	0	0.084	0.0	0.010	0.9	0.5	10.9	27.5	2500.
6	13	39	15	0.084	0.0	0.002	1.0	0.3	10.7	28.3	2500.
6	13	39	30	0.084	0.0	0.002	0.8	0.3	10.8	28.2	2500.
6	13	39	45	0.084	0.0	0.006	0.9	0.4	11.1	28.2	2500.
6	13	40	0	0.083	0.0	0.005	0.9	0.6	11.3	28.3	2500.
6	13	40	15	0.082	0.0	0.002	0.7	0.4	11.4	28.4	2500.
6	13	40	30	0.084	0.0	0.003	0.7	0.5	11.3	27.5	2500.
6	13	40	45	0.084	0.0	0.005	0.9	0.2	11.2	28.4	2500.
7	13	41	0	0.085	0.0	0.009	0.8	0.2	11.1	28.4	2500.
7	13	41	15	0.082	0.0	0.013	0.9	0.3	11.0	28.2	2500.
7	13	41	30	0.085	0.0	0.010	0.9	0.8	11.0	28.2	2500.
7	13	41	45	0.076	0.0	0.003	0.7	0.5	11.0	28.3	2500.
7	13	42	0	0.079	0.0	0.006	0.9	0.4	11.0	28.0	2500.
7	13	42	15	0.081	0.0	0.004	0.8	0.2	10.8	28.3	2500.
7	13	42	30	0.084	0.0	0.004	0.9	0.2	10.8	28.2	2500.
7	13	42	45	0.081	0.0	0.004	0.8	0.2	11.2	28.1	2500.
7	13	43	0	0.078	0.0	0.007	0.8	0.6	11.7	28.3	2500.
7	13	43	15	0.081	0.0	0.007	0.8	0.7	12.0	27.2	2500.
7	13	43	30	0.084	0.0	0.012	0.7	0.6	12.0	28.3	2500.
7	13	43	45	0.080	0.0	0.008	0.7	0.6	12.0	28.0	2500.
7	13	44	0	0.085	0.0	0.008	0.7	0.5	12.1	28.0	2500.
7	13	44	15	0.085	0.0	0.005	0.9	0.7	12.1	27.2	2500.
7	13	44	30	0.084	0.0	0.006	0.8	0.6	12.2	28.1	2500.
7	13	44	45	0.083	0.0	0.002	0.7	0.4	12.3	27.9	2500.
7	13	47	0	0.084	0.0	0.0	0.8	0.6	12.4	27.9	2500.
7	13	47	15	0.086	0.0	0.0	0.8	0.5	12.4	27.9	2500.
7	13	47	30	0.086	0.0	0.0	0.8	0.5	12.1	27.9	2500.
7	13	47	45	0.086	0.0	0.001	0.8	0.3	12.2	27.9	2500.
7	13	48	0	0.084	0.0	0.004	0.7	1.2	12.7	27.9	2500.
7	13	48	15	0.084	0.0	0.002	0.9	0.6	12.9	27.9	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	13	48	30	0.085	0.0	0.004	0.8	0.8	12.8	27.8	2500.
7	13	48	45	0.087	0.0	0.008	0.8	0.4	12.7	28.0	2500.
7	13	49	0	0.086	0.0	0.010	0.9	0.4	12.5	27.0	2500.
7	13	49	15	0.084	0.0	0.014	0.8	0.5	12.3	27.9	2500.
7	13	49	30	0.089	0.0	0.011	0.9	0.6	12.0	27.8	2500.
7	13	49	45	0.088	0.0	0.002	0.7	0.5	11.9	27.8	2500.
7	13	50	0	0.092	0.0	0.005	0.8	1.0	12.1	27.7	2500.
7	13	50	15	0.092	0.0	0.007	0.8	0.7	12.4	27.9	2500.
7	13	50	30	0.095	0.0	0.001	0.9	2.1	12.2	26.9	2500.
7	13	50	45	0.094	0.0	0.006	1.0	1.0	11.9	26.9	2500.
7	13	51	0	0.090	0.0	0.010	1.0	0.7	12.2	27.0	2500.
7	13	51	15	0.110	0.0	0.004	0.8	2.1	12.6	27.7	2500.
7	13	51	30	0.112	0.0	0.005	0.8	1.9	12.9	27.8	2500.
7	13	51	45	0.110	0.0	0.001	0.9	2.2	13.0	27.7	2500.
7	13	52	0	0.112	0.0	0.007	1.0	2.1	12.9	27.8	2500.
7	13	52	15	0.117	0.0	0.008	0.8	2.5	12.6	27.8	2500.
7	13	52	30	0.119	0.0	0.002	0.9	2.8	12.4	27.7	2500.
7	13	52	45	0.122	0.0	0.002	0.8	2.5	12.4	27.6	2500.
7	13	53	0	0.126	0.0	0.012	0.9	3.4	12.6	27.6	2500.
7	13	53	15	0.131	0.0	0.006	1.0	3.8	12.7	27.6	2500.
7	13	53	30	0.117	0.0	0.002	0.9	3.0	12.7	27.6	2500.
7	13	53	45	0.116	0.0	0.005	0.8	3.0	12.5	27.6	2500.
7	13	54	0	0.115	0.0	0.004	1.0	3.2	12.4	26.8	2500.
7	13	54	15	0.122	0.0	0.004	0.8	3.3	12.5	27.6	2500.
7	13	54	30	0.120	0.0	0.007	0.9	3.6	13.0	26.5	2500.
7	13	54	45	0.120	0.0	0.005	0.8	2.6	13.6	26.8	2500.
7	13	55	0	0.131	0.0	0.001	0.9	3.4	14.0	26.6	2500.
7	13	55	15	0.136	0.0	0.005	1.0	3.6	13.9	27.3	2500.
7	13	55	30	0.130	0.0	0.008	0.8	3.8	13.3	27.5	2500.
7	13	55	45	0.104	0.0	0.009	0.9	1.7	12.1	27.3	2500.
7	13	56	0	0.089	0.0	0.010	0.8	0.6	10.9	27.5	2500.
7	13	56	15	0.091	0.0	0.002	0.8	0.1	10.2	27.4	2500.
7	13	56	30	0.079	0.0	0.002	0.9	0.0	10.2	27.4	2500.
7	13	56	45	0.084	0.0	0.005	0.9	0.0	10.7	27.4	2500.
7	13	57	0	0.092	0.0	0.006	0.8	0.5	11.4	27.4	2500.
7	13	57	15	0.108	0.0	0.010	1.0	1.3	12.1	27.3	2500.
7	13	57	30	0.095	0.0	0.012	0.8	1.3	12.6	27.5	2500.
S 1	14	8	45	0.154	0.0	0.004	1.1	7.1	14.5	29.0	1100.
S 1	14	9	0	0.160	0.0	0.003	0.9	7.0	14.5	29.3	1150.
S 1	14	13	15	0.157	0.0	0.004	1.1	6.9	14.4	29.8	1300.
S 1	14	13	30	0.163	0.0	0.003	1.0	******	14.1	29.8	1450.
S 1	14	13	45	0.158	0.0	0.006	0.9	7.7	13.7	29.8	1600.
S 1	14	14	0	0.130	0.0	0.005	0.8	5.3	13.4	29.7	1750.
S 1	14	14	15	0.132	0.0	0.005	0.8	5.4	14.1	29.6	2000.
S 1	14	14	30	0.151	0.0	0.003	1.1	6.9	14.4	28.8	2100.
S 1	14	14	45	0.161	0.0	0.0	1.1	0.9	14.2	28.5	2150.
S 1	14	15	0	0.157	0.0	0.0	1.0	7.7	13.6	28.4	2250.
S 1	14	15	15	0.154	0.0	0.009	1.1	7.3	13.2	28.2	2350.
S 1	14	15	30	0.156	0.0	0.011	0.9	6.8	13.0	28.2	2400.
S 1	14	15	45	0.131	0.0	0.015	1.0	5.5	13.3	28.1	2500.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	16	0	0.150	0.0	0.0	1.0	6.7	13.9	27.9	2600.
S 1	14	16	15	0.148	0.0	0.0	1.0	6.5	14.2	27.8	2650.
S 1	14	16	30	0.146	0.0	0.005	1.1	6.6	14.2	27.6	2750.
S 1	14	16	45	0.147	0.0	0.001	1.2	6.5	14.0	27.4	2850.
S 1	14	17	0	0.159	0.0	0.008	1.2	7.0	13.4	27.1	2900.
S 1	14	17	15	0.151	0.0	0.007	1.0	6.8	12.8	26.9	3000.
S 1	14	17	30	0.141	0.0	0.008	1.0	6.5	12.5	26.7	3100.
S 1	14	17	45	0.144	0.0	0.004	1.1	6.4	12.5	26.5	3200.
S 1	14	18	0	0.143	0.0	0.0	0.9	5.9	12.5	26.3	3250.
S 1	14	18	15	0.151	0.0	0.0	1.1	5.9	12.6	26.0	3350.
S 1	14	18	30	0.140	0.0	0.002	1.0	5.7	12.6	25.9	3450.
S 1	14	18	45	0.147	0.0	0.002	1.2	5.3	13.1	25.5	3550.
S 1	14	19	0	0.160	0.0	0.0	1.2	6.0	13.3	25.3	3650.
S 1	14	19	15	0.152	0.0	0.0	1.1	6.4	13.1	25.0	3750.
S 1	14	19	30	0.145	0.0	0.011	1.0	6.3	12.5	24.8	3800.
S 1	14	19	45	0.149	0.0	0.011	0.9	6.0	12.0	24.4	3900.
S 1	14	20	0	0.134	0.0	0.008	1.0	5.8	11.6	24.2	4000.
S 1	14	20	15	0.137	0.0	0.0	0.9	5.3	11.3	23.9	4100.
S 1	14	20	30	0.083	0.0	0.0	1.0	4.5	11.5	23.8	4200.
S 1	14	20	45	0.146	0.0	0.008	1.2	7.0	11.6	23.3	4250.
S 1	14	21	0	0.130	0.005	0.011	1.0	4.8	11.5	23.0	4350.
S 1	14	21	15	0.141	0.0	0.006	1.1	4.6	11.7	23.0	4450.
S 1	14	21	30	0.139	0.0	0.006	1.3	4.8	11.8	22.7	4550.
S 1	14	21	45	0.137	0.0	0.003	1.1	5.0	11.5	22.2	4650.
S 1	14	22	0	0.139	0.0	0.0	1.1	4.8	11.0	22.1	4750.
S 1	14	22	15	0.141	0.0	0.0	1.2	5.0	10.8	21.9	4800.
S 1	14	22	30	0.137	0.0	0.006	1.0	5.6	10.7	21.7	4900.
S 1	14	22	45	0.136	0.0	0.005	1.2	5.4	10.8	21.4	5000.
S 1	14	23	0	0.146	0.0	0.007	1.2	******	10.6	21.2	5050.
S 1	14	23	15	0.137	0.0	0.009	1.1	6.0	10.2	20.8	5200.
S 1	14	23	30	0.129	0.0	0.012	1.1	4.7	10.2	20.6	5250.
S 1	14	23	45	0.136	0.0	0.007	1.2	5.3	10.2	20.1	5350.
S 1	14	24	0	0.133	0.0	0.005	1.0	4.7	9.6	20.0	5450.
S 1	14	24	15	0.121	0.0	0.002	0.9	1.8	9.1	19.8	5550.
S 1	14	24	30	0.126	0.0	0.006	1.2	2.7	9.3	19.5	5650.
S 1	14	24	45	0.119	0.0	0.006	1.1	2.9	9.4	19.3	5750.
S 1	14	25	0	0.141	0.0	0.008	1.3	4.3	8.9	18.9	5800.
S 1	14	25	15	0.114	0.0	0.0	1.0	3.0	7.8	18.7	5900.
S 1	14	25	30	0.099	0.0	0.002	0.8	3.0	7.2	18.4	6000.
S 1	14	25	45	0.104	0.0	0.0	1.1	1.8	7.7	18.3	6050.
S 1	14	26	0	0.119	0.0	0.0	1.0	0.7	7.9	18.0	6200.
S 1	14	26	15	0.120	0.0	0.0	0.6	3.2	7.2	17.7	6250.
S 1	14	26	30	0.086	0.0	0.001	0.7	0.1	6.3	17.5	6350.
S 1	14	26	45	0.101	0.0	0.001	0.9	0.7	5.9	17.0	6450.
S 1	14	27	0	0.095	0.0	0.0	1.1	0.1	5.7	17.0	6550.
S 1	14	27	15	0.103	0.0	0.0	1.0	0.5	5.5	16.7	6650.
S 1	14	27	30	0.094	0.0	0.0	1.0	0.0	5.4	16.5	6750.
S 1	14	27	45	0.098	0.0	0.001	0.8	0.3	5.4	16.2	6800.
S 1	14	28	0	0.081	0.0	0.007	1.1	0.1	5.0	15.9	6900.
S 1	14	28	15	0.090	0.0	0.004	1.0	0.4	4.7	15.6	7000.

TULSA FLIGHT NUMBER 12 DATE: 9- 3

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	28	30	0.098	0.0	0.005	1.1	0.2	4.7	15.4	7100.
S 1	14	28	45	0.116	0.0	0.001	0.9	1.8	4.8	15.3	7200.
S 1	14	29	0	0.100	0.0	0.001	1.0	0.6	4.7	15.0	7300.
S 1	14	29	15	0.093	0.0	0.0	1.0	0.1	4.4	14.7	7400.
S 1	14	29	30	0.095	0.0	0.009	1.0	0.0	4.2	14.5	7500.
S 1	14	29	45	0.089	0.0	0.008	1.2	0.2	4.0	14.3	7600.
S 1	14	30	0	0.092	0.0	0.005	1.0	0.0	3.8	14.1	7700.
S 1	14	30	15	0.099	0.0	0.005	1.1	0.1	3.6	13.7	7800.
S 1	14	30	30	0.105	0.0	0.002	0.9	0.5	3.6	13.6	7900.
S 1	14	30	45	0.102	0.0	0.004	1.1	0.5	3.6	13.2	8000.
S 1	14	31	0	0.100	0.0	0.005	1.0	0.8	3.5	13.1	8050.
S 1	14	31	15	0.098	0.0	0.008	0.9	0.3	3.4	12.9	8200.
S 1	14	31	30	0.097	0.0	0.001	1.1	0.0	3.3	12.7	8250.
S 1	14	31	45	0.097	0.0	0.008	1.0	0.0	2.7	12.3	8350.
S 1	14	32	0	0.101	0.0	0.008	1.0	0.0	1.8	12.9	8450.
S 1	14	32	15	0.098	0.0	0.003	0.9	0.3	1.2	11.9	8550.
S 1	14	32	30	0.105	0.0	0.0	0.8	0.2	1.3	11.7	8650.
S 1	14	32	45	0.097	0.0	0.008	1.0	0.2	1.3	11.3	8750.
S 1	14	33	0	0.092	0.0	0.010	0.8	0.1	0.7	11.1	8800.
S 1	14	33	15	0.085	0.0	0.012	0.8	0.6	-0.3	11.0	8900.
S 1	14	33	30	0.093	0.0	0.004	0.7	0.4	-1.6	10.8	9000.
S 1	14	33	45	0.081	0.0	0.005	0.7	0.4	-2.7	10.7	9100.
S 1	14	34	0	0.094	0.0	0.011	0.9	0.2	-2.8	10.5	9200.
S 1	14	34	15	0.093	0.0	0.006	0.8	0.4	-2.4	10.3	9300.
S 1	14	34	30	0.092	0.0	0.0	0.8	0.3	-2.0	10.0	9400.
S 1	14	34	45	0.093	0.0	0.003	0.8	0.1	-1.7	9.9	9500.
S 1	14	35	0	0.100	0.0	0.004	0.8	0.2	-2.0	9.8	9600.
S 1	14	35	15	0.086	0.0	0.0	0.6	0.0	-2.7	9.5	9700.
S 1	14	35	30	0.088	0.0	0.002	0.8	0.5	-3.1	9.3	9800.
S 1	14	35	45	0.091	0.0	0.002	0.7	0.4	-3.5	9.1	9900.
S 1	14	36	0	0.089	0.0	0.0	0.8	0.3	-3.2	8.9	10000.
S 1	14	36	15	0.091	0.0	0.004	1.0	0.4	-2.0	8.8	10150.
S 1	14	36	30	0.095	0.0	0.001	1.0	0.5	-1.1	8.6	10300.
S 1	14	36	45	0.096	0.0	0.004	1.0	0.6	-0.7	8.3	10450.
S 1	14	37	0	0.094	0.0	0.0	0.9	0.5	-0.8	8.0	10550.
S 1	14	37	15	0.088	0.0	0.003	0.8	0.6	-1.1	8.0	10700.
S 1	14	37	30	0.091	0.0	0.0	1.0	0.5	-1.2	7.7	10850.
S 1	14	37	45	0.109	0.0	0.001	0.9	0.3	-1.4	7.4	11000.
S 1	14	38	0	0.105	0.0	0.002	0.7	0.6	-2.1	7.2	11150.
S 1	14	38	15	0.113	0.0	0.004	0.9	0.3	-2.6	6.9	11250.
S 1	14	38	30	0.111	0.0	0.003	0.9	0.6	-3.5	6.4	11400.
S 1	14	38	45	0.106	0.0	0.003	0.8	0.4	-4.9	6.3	11500.
S 1	14	39	0	0.088	0.0	0.005	0.7	0.6	-7.2	6.2	11650.
S 1	14	39	15	0.081	0.0	0.0	0.5	0.7	-9.2	6.0	11750.
S 1	14	39	30	0.080	0.0	0.0	0.5	0.7	-10.3	5.9	11900.
S 1	14	39	45	0.083	0.006	0.007	0.5	0.4	-10.8	5.7	12000.

TULSA FLIGHT NUMBER 14 DATE: 9- 8- 1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	11	48	15	0.069	0.0	0.0	2.2	3.5	20.0	25.1	2240.
1	11	48	30	0.071	0.0	0.0	2.4	3.1	19.8	25.3	2320.
1	11	48	45	0.070	0.0	0.0	2.3	2.8	19.9	25.1	2250.
1	11	49	0	0.070	0.0	0.0	2.4	2.9	20.0	25.3	2310.
1	11	49	15	0.070	0.0	0.0	2.2	2.7	19.9	25.2	2240.
1	11	49	30	0.071	0.0	0.0	2.3	2.7	19.7	25.1	2310.
1	11	49	45	0.070	0.0	0.0	2.4	2.8	19.5	25.1	2280.
1	11	50	0	0.072	0.0	0.0	2.4	2.9	19.5	25.1	2290.
1	11	50	15	0.073	0.0	0.0	2.3	2.8	19.6	25.1	2300.
1	11	50	30	0.072	0.0	0.0	2.4	2.6	19.7	25.1	2290.
1	11	50	45	0.073	0.0	0.0	2.4	2.5	19.7	25.2	2300.
1	11	51	0	0.072	0.0	0.0	2.3	5.9	19.8	25.2	2280.
1	11	51	15	0.072	0.0	0.0	2.4	3.0	19.9	25.2	2260.
1	11	51	30	0.073	0.0	0.0	2.3	3.2	19.8	25.1	2280.
1	11	51	45	0.072	0.0	0.0	2.6	2.9	19.8	25.2	2260.
1	11	52	0	0.074	0.0	0.0	2.6	5.6	19.7	25.2	2240.
1	11	52	15	0.073	0.0	0.0	2.4	2.4	19.7	25.1	2290.
1	11	52	30	0.072	0.0	0.0	2.4	2.6	19.7	25.2	2240.
1	11	52	45	0.073	0.0	0.0	2.6	2.7	20.1	25.3	2290.
1	11	53	0	0.072	0.0	0.0	2.5	2.6	20.3	25.2	2240.
1	11	53	15	0.073	0.0	0.0	2.5	2.8	20.1	25.1	2300.
1	11	53	30	0.073	0.0	0.0	2.4	2.6	19.9	25.2	2240.
1	11	53	45	0.074	0.0	0.0	2.6	2.4	19.8	25.2	2290.
1	11	54	0	0.074	0.0	0.0	2.6	2.5	19.9	25.3	2280.
1	11	54	15	0.073	0.0	0.0	2.6	2.4	19.8	25.2	2290.
1	11	54	30	0.075	0.0	0.0	2.3	2.3	19.7	25.1	2260.
1	11	54	45	0.075	0.0	0.0	2.3	2.5	19.6	25.1	2260.
1	11	55	0	0.076	0.0	0.0	2.5	2.3	19.5	25.2	2260.
1	11	55	15	0.076	0.0	0.0	2.7	2.4	19.6	25.2	2290.
1	11	55	30	0.077	0.0	0.0	2.4	2.5	19.8	25.2	2240.
1	11	55	45	0.078	0.0	0.0	2.3	2.4	20.2	25.2	2280.
1	11	56	0	0.079	0.0	0.0	2.6	2.6	20.3	25.1	2260.
1	11	56	15	0.079	0.0	0.0	2.4	2.5	20.1	25.1	2260.
1	11	56	30	0.079	0.0	0.0	2.2	2.3	19.9	25.2	2250.
2	11	56	45	0.078	0.0	0.0	2.5	2.3	19.9	25.2	2260.
2	11	57	0	0.078	0.0	0.0	2.5	2.3	19.9	25.1	2240.
2	11	57	15	0.078	0.0	0.0	2.7	2.4	20.0	25.1	2290.
2	11	57	30	0.078	0.0	0.0	2.4	2.3	20.0	25.1	2260.
2	11	57	45	0.079	0.0	0.0	2.5	2.4	20.0	25.1	2270.
2	11	58	0	0.082	0.0	0.0	2.3	2.5	19.9	25.2	2260.
2	11	58	15	0.083	0.0	0.0	2.3	2.6	19.8	25.2	2290.
2	11	58	30	0.082	0.0	0.0	2.5	2.4	19.8	25.3	2260.
2	11	58	45	0.084	0.0	0.0	2.5	2.9	19.9	25.2	2290.
2	11	59	0	0.087	0.0	0.0	2.3	2.9	19.7	25.2	2300.
2	11	59	15	0.092	0.0	0.0	2.4	4.2	19.8	25.2	2290.
2	11	59	30	0.094	0.0	0.0	2.4	4.1	19.9	25.3	2320.
2	11	59	45	0.095	0.0	0.0	2.5	4.3	19.6	25.2	2290.
2	12	0	0	0.092	0.0	0.0	2.6	3.3	19.3	25.2	2290.
2	12	0	15	0.092	0.0	0.0	2.6	4.4	19.4	25.2	2290.
2	12	0	30	0.105	0.0	0.0	2.5	4.8	19.7	25.2	2260.

TULSA FLIGHT NUMBER 14 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOx PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
2	12	0	45	0.109	0.0	0.0	2.8	12.3	19.8	25.2	2260.
2	12	1	0	0.110	0.0	0.0	2.6	13.0	19.6	25.2	2320.
2	12	1	15	0.106	0.0	0.0	2.5	6.4	19.5	25.1	2290.
2	12	1	30	0.100	0.0	0.0	2.3	4.9	19.5	25.2	2260.
2	12	1	45	0.105	0.0	0.0	2.5	7.0	19.8	25.2	2260.
2	12	2	0	0.107	0.0	0.0	2.7	7.1	20.1	25.2	2290.
2	12	2	15	0.106	0.0	0.0	3.0	9.1	20.3	25.0	2260.
2	12	2	30	0.105	0.0	0.0	3.0	9.2	20.4	24.9	2280.
2	12	2	45	0.101	0.0	0.0	2.7	8.7	20.2	25.0	2300.
2	12	3	0	0.098	0.0	0.001	2.8	7.1	19.9	24.9	2270.
2	12	3	15	0.095	0.0	0.0	2.9	6.2	19.8	24.9	2310.
2	12	3	30	0.093	0.0	0.0	2.7	8.6	19.9	25.0	2290.
2	12	3	45	0.093	0.0	0.002	2.7	8.1	20.2	24.9	2280.
2	12	4	0	0.085	0.0	0.0	2.8	4.4	20.5	25.0	2260.
2	12	4	15	0.083	0.0	0.0	2.8	4.7	20.6	25.0	2280.
2	12	4	30	0.077	0.0	0.001	2.8	6.3	20.3	24.9	2290.
2	12	4	45	0.082	0.0	0.002	3.1	4.3	20.1	25.0	2310.
2	12	5	0	0.087	0.0	0.004	3.0	3.7	19.8	24.9	2260.
2	12	5	15	0.089	0.0	0.004	3.2	3.7	19.7	25.0	2290.
2	12	5	30	0.088	0.0	0.001	3.0	3.8	19.9	24.9	2310.
3	12	5	45	0.087	0.0	0.0	2.9	3.6	20.1	24.9	2250.
3	12	6	0	0.088	0.0	0.0	3.3	4.0	20.5	24.7	2310.
3	12	6	15	0.088	0.0	0.0	3.0	4.0	20.4	25.0	2310.
3	12	6	30	0.086	0.0	0.0	3.1	3.8	20.1	25.0	2280.
3	12	6	45	0.083	0.0	0.0	3.1	3.4	20.0	24.8	2290.
3	12	7	0	0.081	0.0	0.0	2.8	2.6	20.0	25.0	2270.
3	12	7	15	0.080	0.0	0.0	3.0	3.5	20.3	24.9	2260.
3	12	7	30	0.078	0.0	0.0	3.6	5.6	20.4	24.9	2280.
3	12	7	45	0.075	0.0	0.0	3.3	4.3	20.4	24.9	2270.
3	12	8	0	0.074	0.0	0.001	3.1	4.2	20.2	25.0	2260.
3	12	8	15	0.074	0.0	0.002	3.4	5.1	20.1	24.9	2290.
3	12	8	30	0.072	0.0	0.004	2.6	3.0	19.9	24.8	2260.
3	12	8	45	0.068	0.0	0.003	3.3	7.1	20.1	24.9	2270.
3	12	9	0	0.065	0.0	0.004	3.4	5.4	20.3	24.9	2270.
3	12	9	15	0.068	0.0	0.006	3.0	4.4	20.4	24.8	2260.
3	12	9	30	0.069	0.0	0.003	3.1	3.9	20.4	25.0	2280.
3	12	9	45	0.066	0.0	0.003	2.9	5.2	20.4	24.9	2290.
3	12	10	0	0.065	0.0	0.004	3.0	4.6	20.4	24.9	2270.
3	12	10	15	0.075	0.0	0.003	2.9	4.0	20.3	24.9	2250.
3	12	10	30	0.077	0.0	0.004	2.8	4.5	20.1	25.0	2260.
3	12	10	45	0.078	0.0	0.001	2.8	3.6	19.7	25.0	2270.
3	12	11	0	0.076	0.0	0.0	2.9	2.7	19.5	25.0	2250.
3	12	11	15	0.076	0.0	0.0	2.7	2.3	19.7	25.0	2270.
3	12	11	30	0.076	0.0	0.003	2.8	2.8	20.0	25.0	2260.
3	12	11	45	0.075	0.0	0.002	2.8	1.9	20.4	24.9	2260.
3	12	12	0	0.076	0.0	0.002	2.8	2.8	20.4	25.1	2300.
3	12	12	15	0.075	0.0	0.001	3.0	2.0	20.5	24.9	2250.
3	12	12	30	0.073	0.0	0.0	2.7	2.0	20.6	24.7	2270.
3	12	12	45	0.074	0.0	0.0	2.9	2.1	20.7	24.9	2270.
3	12	13	0	0.074	0.0	0.0	2.8	2.1	20.6	24.9	2270.

TULSA FLIGHT NUMBER 14 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	12	13	15	0.074	0.0	0.0	2.8	2.2	20.3	24.9	2270.
3	12	13	30	0.074	0.0	0.0	2.7	2.2	19.9	24.8	2290.
3	12	13	45	0.074	0.0	0.0	2.7	2.1	19.6	24.9	2250.
3	12	14	0	0.075	0.0	0.0	2.8	2.1	19.5	25.0	2290.
3	12	14	15	0.075	0.0	0.0	2.6	2.2	19.6	25.1	2260.
3	12	14	30	0.074	0.0	0.0	2.9	2.0	19.8	25.0	2280.
3	12	14	45	0.075	0.0	0.0	2.7	2.4	19.8	25.1	2290.
3	12	15	0	0.074	0.0	0.0	2.9	2.0	19.8	24.9	2250.
3	12	15	15	0.075	0.0	0.0	2.9	3.0	20.2	24.9	2250.
4	12	15	30	0.074	0.0	0.0	2.9	2.3	20.5	24.9	2250.
4	12	15	45	0.074	0.0	0.0	3.2	4.0	20.6	25.0	2240.
4	12	16	0	0.074	0.0	0.0	3.2	2.0	20.6	25.0	2270.
4	12	16	15	0.075	0.0	0.0	3.1	2.1	20.8	25.0	2260.
4	12	16	30	0.074	0.0	0.0	3.1	1.9	20.7	25.2	2240.
4	12	16	45	0.074	0.0	0.0	3.2	2.5	20.6	25.2	2310.
4	12	17	0	0.074	0.0	0.0	2.9	2.4	20.5	25.2	2260.
4	12	17	15	0.074	0.0	0.0	2.9	2.1	20.4	25.2	2260.
4	12	17	30	0.075	0.0	0.0	2.9	2.3	20.2	25.0	2260.
4	12	17	45	0.074	0.0	0.0	2.8	2.1	19.9	25.2	2260.
4	12	18	0	0.074	0.0	0.0	2.8	2.4	19.7	25.1	2290.
4	12	18	15	0.074	0.0	0.0	2.7	2.3	19.8	25.1	2260.
4	12	18	30	0.074	0.0	0.0	2.9	2.8	19.9	25.2	2260.
4	12	18	45	0.073	0.0	0.0	2.7	2.2	20.1	25.2	2260.
4	12	19	0	0.073	0.0	0.0	2.7	1.9	20.0	25.2	2260.
4	12	19	15	0.074	0.0	0.0	2.7	1.9	20.1	25.2	2290.
4	12	19	30	0.074	0.0	0.0	2.7	2.3	20.2	25.2	2280.
4	12	19	45	0.076	0.0	0.0	3.0	3.1	20.3	25.2	2260.
4	12	20	0	0.071	0.0	0.0	2.7	4.0	20.2	25.3	2290.
4	12	20	15	0.084	0.0	0.0	2.5	3.5	20.1	25.3	2270.
4	12	20	30	0.084	0.0	0.0	2.6	5.2	19.9	25.3	2290.
4	12	20	45	0.081	0.0	0.0	2.4	3.2	19.9	25.4	2240.
4	12	21	0	0.076	0.0	0.0	2.4	2.0	19.7	25.4	2240.
4	12	21	15	0.074	0.0	0.0	2.3	2.0	19.7	25.2	2290.
4	12	21	30	0.071	0.0	0.0	2.4	2.2	19.7	25.5	2260.
4	12	21	45	0.072	0.0	0.0	2.4	2.1	19.6	25.4	2290.
4	12	22	0	0.072	0.0	0.0	2.3	2.1	19.4	25.2	2260.
4	12	22	15	0.071	0.0	0.0	2.5	******	19.7	25.4	2310.
4	12	22	30	0.071	0.0	0.0	2.4	5.5	20.0	25.3	2260.
4	12	22	45	0.071	0.0	0.0	2.5	2.2	20.2	25.4	2260.
4	12	23	0	0.070	0.0	0.0	2.3	3.1	20.0	25.6	2290.
4	12	23	15	0.069	0.0	0.0	2.6	2.2	19.8	25.6	2290.

TULSA FLIGHT NUMBER 15 DATE: 9- 8- 1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	14	2	0	0.068	0.0	0.0	1.5	2.6	19.0	27.8	2680.
1	14	2	15	0.067	0.0	0.0	1.6	2.4	19.0	27.4	2640.
1	14	2	30	0.068	0.0	0.0	1.6	2.5	19.2	27.3	2590.
1	14	2	45	0.068	0.0	0.0	1.5	2.2	19.2	26.8	2540.
1	14	3	0	0.069	0.0	0.0	1.4	2.1	18.9	26.7	2570.
1	14	3	15	0.069	0.0	0.0	1.3	2.0	18.9	26.7	2540.
1	14	3	30	0.070	0.0	0.0	1.6	2.0	19.0	26.7	2450.
1	14	3	45	0.070	0.0	0.0	1.5	1.7	19.3	26.4	2450.
1	14	4	0	0.069	0.0	0.0	1.4	1.8	19.6	26.5	2460.
1	14	4	15	0.068	0.0	0.0	1.6	1.9	19.8	26.3	2460.
1	14	4	30	0.066	0.0	0.0	1.5	1.7	19.8	26.3	2460.
1	14	4	45	0.066	0.0	0.0	1.6	1.6	19.5	26.1	2480.
1	14	5	0	0.066	0.0	0.0	1.6	1.5	19.5	25.9	2540.
1	14	5	15	0.066	0.0	0.0	1.7	1.4	19.7	26.0	2490.
1	14	5	30	0.066	0.0	0.0	1.8	1.6	19.9	26.0	2560.
1	14	5	45	0.066	0.0	0.0	1.8	1.6	19.9	25.9	2600.
1	14	6	0	0.065	0.0	0.0	1.8	1.7	19.9	25.7	2600.
1	14	6	15	0.066	0.0	0.0	1.8	1.7	19.8	25.6	2550.
1	14	6	30	0.066	0.0	0.0	1.9	1.7	19.8	25.5	2630.
1	14	6	45	0.066	0.0	0.0	1.8	1.7	19.8	25.5	2590.
1	14	7	0	0.066	0.0	0.0	1.8	2.1	19.8	25.5	2580.
1	14	7	15	0.067	0.0	0.0	1.9	2.0	19.7	25.5	2630.
1	14	7	30	0.068	0.0	0.0	1.8	2.4	19.6	25.2	2600.
1	14	7	45	0.068	0.0	0.0	1.8	2.3	19.5	25.2	2640.
1	14	8	0	0.068	0.0	0.0	1.7	1.6	19.4	25.2	2690.
1	14	8	15	0.068	0.0	0.0	1.9	1.6	19.5	24.9	2680.
1	14	8	30	0.069	0.0	0.0	1.9	1.7	19.5	24.9	2730.
1	14	8	45	0.070	0.0	0.0	1.9	1.6	19.6	24.6	2640.
1	14	9	0	0.071	0.0	0.0	2.0	1.8	19.7	24.9	2620.
1	14	9	15	0.073	0.0	0.0	2.2	2.0	19.4	24.9	2580.
1	14	9	30	0.073	0.0	0.0	1.9	1.7	18.9	24.9	2590.
1	14	9	45	0.073	0.0	0.0	1.9	2.0	19.0	24.9	2530.
1	14	10	0	0.073	0.0	0.0	2.2	2.3	19.3	25.0	2580.
1	14	10	15	0.072	0.0	0.0	2.0	3.4	19.4	25.0	2560.
1	14	10	30	0.071	0.0	0.0	1.9	2.2	19.3	24.9	2560.
1	14	10	45	0.071	0.0	0.0	1.9	1.7	19.2	25.0	2580.
1	14	11	0	0.071	0.0	0.0	2.1	1.9	19.7	25.0	2550.
1	14	11	15	0.071	0.0	0.0	2.0	1.9	20.2	24.7	2550.
1	14	11	30	0.072	0.0	0.0	2.4	2.0	20.3	24.6	2580.
1	14	11	45	0.073	0.0	0.0	2.3	2.0	19.8	24.6	2530.
1	14	12	0	0.073	0.0	0.0	2.3	1.6	19.6	24.9	2580.
1	14	12	15	0.074	0.0	0.0	2.2	1.7	19.8	24.6	2530.
1	14	12	30	0.075	0.0	0.0	2.3	3.0	20.1	26.9	2580.
1	14	12	45	0.076	0.0	0.0	2.3	2.2	20.3	24.8	2550.
1	14	13	0	0.080	0.0	0.0	2.4	3.9	20.3	24.5	2590.
1	14	13	15	0.084	0.0	0.0	2.7	5.1	20.2	25.1	2530.
1	14	13	30	0.084	0.0	0.0	2.7	4.2	20.1	24.6	2550.
1	14	13	45	0.084	0.0	0.0	2.6	2.7	20.0	24.3	2540.
1	14	14	0	0.086	0.0	0.0	2.6	2.7	19.9	24.3	2550.
1	14	14	15	0.088	0.0	0.0	2.8	2.9	20.0	24.4	2560.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	14	14	30	0.091	0.0	0.0	2.8	2.9	20.3	24.3	2580.
1	14	14	45	0.097	0.0	0.0	2.8	3.7	20.4	25.3	2580.
1	14	15	0	0.100	0.0	0.0	2.8	3.1	20.1	24.5	2570.
1	14	15	15	0.101	0.0	0.0	2.7	3.3	20.1	24.3	2540.
1	14	15	30	0.102	0.0	0.0	2.8	3.0	19.9	24.3	2530.
1	14	15	45	0.101	0.0	0.0	2.8	2.6	19.6	24.3	2550.
1	14	16	0	0.100	0.0	0.0	2.5	2.0	19.1	24.3	2540.
1	14	16	15	0.093	0.0	0.0	2.5	1.8	18.9	24.3	2540.
1	14	16	30	0.093	0.0	0.0	2.5	1.8	18.8	24.3	2520.
1	14	16	45	0.090	0.0	0.0	2.5	1.7	18.6	24.3	2520.
1	14	17	0	0.087	0.0	0.0	2.7	1.5	18.7	24.4	2540.
1	14	17	15	0.086	0.0	0.0	2.8	2.0	19.1	24.3	2550.
1	14	17	30	0.079	0.0	0.0	2.8	1.6	19.6	24.3	2530.
1	14	17	45	0.079	0.0	0.0	2.8	1.5	19.7	24.4	2540.
1	14	18	0	0.078	0.0	0.0	2.8	1.4	19.5	24.5	2520.
1	14	18	15	0.084	0.0	0.0	2.8	1.5	19.1	24.5	2550.
1	14	18	30	0.088	0.0	0.0	2.8	2.1	19.2	24.9	2520.
1	14	18	45	0.086	0.0	0.0	2.8	2.1	19.3	24.9	2520.
1	14	19	0	0.083	0.0	0.0	2.7	1.6	19.4	24.9	2520.
1	14	19	15	0.081	0.0	0.001	2.7	1.4	19.4	24.9	2530.
1	14	19	30	0.080	0.0	0.0	2.7	1.7	19.5	24.8	2580.
1	14	19	45	0.079	0.0	0.0	2.8	1.6	19.3	24.6	2530.
1	14	20	0	0.079	0.0	0.002	2.8	1.8	19.4	24.9	2520.
1	14	20	15	0.079	0.0	0.001	2.8	1.7	19.6	25.6	2550.
1	14	20	30	0.079	0.0	0.003	2.7	2.0	19.5	24.5	2550.
1	14	20	45	0.079	0.0	0.001	2.7	1.5	19.3	24.9	2510.
1	14	21	0	0.079	0.0	0.0	2.8	1.9	19.2	24.9	2550.
1	14	21	15	0.078	0.0	0.0	2.6	1.9	19.2	25.0	2560.
1	14	21	30	0.078	0.0	0.0	2.8	1.6	19.3	24.9	2560.
1	14	21	45	0.077	0.0	0.0	2.7	1.8	19.4	24.9	2550.
1	14	22	0	0.077	0.0	0.0	2.8	1.7	19.5	25.0	2500.
1	14	22	15	0.078	0.0	0.0	2.8	2.0	19.4	25.4	2560.
1	14	22	30	0.077	0.0	0.0	2.8	4.7	19.5	26.3	2540.
1	14	22	45	0.079	0.0	0.0	2.7	2.0	19.8	24.9	2550.
1	14	23	0	0.079	0.0	0.0	2.8	2.6	20.0	24.8	2590.
1	14	23	15	0.080	0.0	0.0	2.8	2.5	20.0	25.0	2550.
1	14	23	30	0.081	0.0	0.0	2.8	2.1	19.8	24.9	2530.
1	14	23	45	0.081	0.0	0.0	2.6	2.6	19.6	24.9	2520.
1	14	24	0	0.085	0.0	0.0	2.7	7.9	19.7	25.1	2520.
1	14	24	15	0.088	0.0	0.0	2.8	7.1	19.5	25.0	2560.
1	14	24	30	0.089	0.0	0.0	2.5	4.8	19.2	25.1	2600.
1	14	24	45	0.090	0.0	0.0	2.7	6.3	19.0	26.6	2590.
1	14	25	0	0.094	0.0	0.0	2.8	7.4	19.1	25.1	2550.
1	14	25	15	0.096	0.0	0.0	2.8	6.0	19.2	25.2	2550.
1	14	25	30	0.102	0.0	0.0	2.7	6.6	19.5	25.2	2550.
1	14	25	45	0.117	0.0	0.0	2.8	7.2	19.6	25.0	2540.
1	14	26	0	0.108	0.0	0.0	2.7	5.9	19.6	25.1	2560.
1	14	26	15	0.109	0.0	0.0	2.8	7.3	19.4	25.2	2540.
1	14	26	30	0.108	0.0	0.0	2.8	9.3	19.6	25.1	2540.
1	14	26	45	0.111	0.0	0.0	2.8	9.2	19.8	25.2	2560.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	14	27	0	0.111	0.0	0.0	2.8	11.7	19.8	25.3	2550.
1	14	27	15	0.104	0.0	0.0	2.8	11.3	19.5	25.4	2530.
1	14	27	30	0.095	0.0	0.0	2.5	5.2	19.3	25.2	2540.
1	14	27	45	0.090	0.0	0.0	2.4	7.1	19.3	25.3	2540.
1	14	28	0	0.086	0.0	0.0	2.5	4.4	19.4	25.4	2530.
1	14	28	15	0.085	0.0	0.0	2.4	3.5	19.3	25.5	2560.
1	14	28	30	0.085	0.0	0.0	2.6	3.1	19.0	25.5	2530.
1	14	28	45	0.087	0.0	0.0	2.5	2.8	18.8	25.5	2560.
1	14	29	0	0.083	0.0	0.002	2.4	1.9	18.7	25.0	2520.
1	14	29	15	0.081	0.0	0.0	2.4	2.2	18.7	25.3	2530.
1	14	29	30	0.081	0.0	0.0	2.6	2.4	18.8	27.3	2550.
1	14	29	45	0.079	0.0	0.0	2.2	1.8	18.7	25.5	2530.
1	14	30	0	0.075	0.0	0.0	2.3	1.3	18.6	25.7	2530.
2	14	30	15	0.076	0.0	0.0	2.4	1.4	18.3	25.4	2510.
2	14	30	30	0.078	0.0	0.0	1.1	1.2	18.1	26.2	2510.
2	14	30	45	0.077	0.0	0.0	1.1	1.0	18.1	26.0	2540.
2	14	31	0	0.075	0.0	0.0	1.3	1.0	18.5	26.5	2590.
2	14	31	15	0.075	0.0	0.0	0.3	1.1	18.7	26.0	2540.
2	14	31	30	0.074	0.0	0.0	0.3	1.2	18.9	26.0	2600.
2	14	31	45	0.074	0.0	0.0	1.2	1.3	18.7	26.2	2560.
2	14	32	0	0.074	0.0	0.0	1.2	1.0	18.6	26.2	2540.
2	14	32	15	0.074	0.0	0.0	1.3	1.2	18.5	26.1	2560.
3	14	32	30	0.074	0.0	0.0	1.4	1.1	18.3	26.1	2540.
3	14	32	45	0.074	0.0	0.0	1.5	1.1	18.3	26.0	2530.
3	14	33	0	0.074	0.0	0.0	1.4	1.1	18.4	26.0	2560.
3	14	33	15	0.073	0.0	0.0	1.5	1.1	18.6	26.1	2540.
3	14	33	30	0.074	0.0	0.0	1.4	1.2	19.0	26.1	2560.
3	14	33	45	0.074	0.0	0.0	1.6	2.2	19.2	25.9	2520.
3	14	34	0	0.075	0.0	0.002	1.9	2.2	19.2	26.1	2530.
3	14	34	15	0.075	0.0	0.0	1.7	2.3	19.2	26.1	2540.
3	14	34	30	0.075	0.0	0.0	1.6	2.5	19.2	26.1	2560.
3	14	34	45	0.073	0.0	0.0	1.9	1.6	19.0	26.0	2580.
3	14	35	0	0.072	0.0	0.0	1.8	1.5	18.9	25.9	2530.
3	14	35	15	0.073	0.0	0.0	1.8	1.4	18.9	26.1	2600.
3	14	35	30	0.072	0.0	0.0	1.8	1.4	19.0	26.2	2560.
3	14	35	45	0.073	0.0	0.0	1.7	1.5	19.2	25.9	2530.
3	14	36	0	0.073	0.0	0.0	1.8	1.8	19.5	26.0	2540.
3	14	36	15	0.073	0.0	0.0	1.9	1.9	19.7	26.1	2580.
3	14	36	30	0.073	0.0	0.0	******	2.0	19.7	26.2	2560.
3	14	36	45	0.074	0.0	0.001	1.9	1.2	19.5	26.0	2560.
3	14	37	0	0.074	0.0	0.006	2.0	1.3	19.4	26.0	2520.
3	14	37	15	0.074	0.0	0.001	2.2	1.3	19.5	25.9	2540.
3	14	37	30	0.072	0.0	0.0	2.2	1.2	19.6	25.9	2540.
3	14	37	45	0.071	0.0	0.0	2.1	1.4	19.6	26.0	2540.
3	14	38	0	0.072	0.0	0.0	2.2	1.6	19.5	26.0	2590.
3	14	38	15	0.072	0.0	0.0	2.1	1.4	19.1	26.0	2530.
3	14	38	30	0.073	0.0	0.0	2.1	1.4	18.9	25.9	2550.
3	14	38	45	0.073	0.0	0.0	1.8	1.4	18.9	25.9	2540.
3	14	39	0	0.074	0.0	0.0	2.2	1.3	18.9	25.8	2530.
3	14	39	15	0.073	0.0	0.0	2.1	1.2	18.9	25.7	2560.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	14	39	30	0.073	0.0	0.0	2.2	1.3	18.7	25.5	2540.
3	14	39	45	******	0.0	0.0	2.0	1.1	18.7	25.7	2570.
3	14	40	0	0.073	0.0	0.0	2.0	1.4	18.9	25.8	2560.
3	14	40	15	0.074	0.0	0.0	2.0	1.5	19.1	25.6	2510.
3	14	40	30	0.074	0.0	0.0	2.3	1.5	19.1	25.7	2530.
3	14	40	45	0.077	0.0	0.0	2.1	1.7	18.8	25.6	2540.
3	14	41	0	0.077	0.0	0.0	2.0	1.7	18.8	25.7	2510.
3	14	41	15	0.077	0.0	0.0	2.3	1.6	19.0	25.6	2540.
3	14	41	30	0.079	0.0	0.0	2.3	2.2	19.5	25.6	2530.
3	14	41	45	0.081	0.0	0.0	2.4	2.5	19.5	25.7	2550.
3	14	42	0	0.082	0.0	0.0	2.3	2.2	19.2	25.6	2530.
3	14	42	15	0.082	0.0	0.0	2.3	2.0	19.0	25.6	2530.
3	14	42	30	0.083	0.0	0.0	2.3	2.4	19.2	25.5	2530.
3	14	42	45	0.086	0.0	0.0	2.5	4.1	19.3	25.6	2530.
3	14	43	0	0.096	0.0	0.001	2.4	8.9	19.3	25.6	2530.
3	14	43	15	0.102	0.0	0.001	2.7	8.9	19.2	25.6	2540.
3	14	43	30	0.110	0.0	0.0	2.6	8.4	19.4	25.4	2560.
3	14	43	45	0.112	0.0	0.0	2.6	9.3	19.3	25.5	2520.
3	14	44	0	0.114	0.0	0.0	2.7	9.8	19.4	25.5	2510.
3	14	44	15	0.114	0.0	0.0	2.6	5.6	19.5	25.2	2530.
3	14	44	30	0.116	0.0	0.0	2.6	7.3	19.7	25.2	2520.
3	14	44	45	0.114	0.0	0.0	2.6	5.5	19.6	25.5	2510.
3	14	45	0	0.109	0.0	0.0	2.7	6.0	19.4	25.4	2510.
3	14	45	15	0.108	0.0	0.0	2.5	5.0	19.4	25.2	2540.
3	14	45	30	0.106	0.0	0.0	2.6	5.5	19.7	25.2	2550.
3	14	45	45	0.100	0.0	0.0	2.6	6.4	19.9	25.4	2530.
3	14	46	0	0.098	0.0	0.0	2.8	6.7	20.0	25.3	2540.
3	14	46	15	0.095	0.0	0.0	2.8	7.9	19.9	25.2	2560.
3	14	46	30	0.093	0.0	0.0	2.8	8.0	19.8	25.3	2520.
3	14	46	45	0.092	0.0	0.0	2.7	6.0	19.7	25.3	2540.
3	14	47	0	0.088	0.0	0.0	2.8	6.6	19.9	25.1	2560.
3	14	47	15	0.086	0.0	0.0	2.6	3.3	19.8	25.0	2520.
3	14	47	30	0.085	0.0	0.0	2.7	2.6	19.6	25.2	2560.
3	14	47	45	0.084	0.0	0.0	2.7	2.1	19.6	25.0	2520.
3	14	48	0	0.084	0.0	0.0	2.8	2.3	19.7	25.1	2530.
3	14	48	15	0.084	0.0	0.0	2.7	2.4	19.7	25.1	2520.
3	14	48	30	0.084	0.0	0.0	2.8	2.1	19.4	25.1	2540.
3	14	48	45	0.082	0.0	0.0	2.8	2.1	19.3	24.9	2510.
3	14	49	0	0.082	0.0	0.0	2.7	2.0	19.3	24.9	2510.
3	14	49	15	0.082	0.0	0.0	2.7	2.0	19.5	24.9	2550.
3	14	49	30	0.080	0.0	0.0	2.8	1.9	19.7	25.0	2510.
3	14	49	45	0.079	0.0	0.0	2.7	1.9	19.8	24.9	2520.
3	14	50	0	0.078	0.0	0.0	2.8	2.3	19.7	25.0	2500.
3	14	50	15	0.079	0.0	0.0	2.7	2.3	19.8	24.9	2550.
3	14	50	30	0.078	0.0	0.0	2.7	2.8	19.6	25.0	2540.
3	14	50	45	0.079	0.0	0.0	2.7	2.5	19.3	24.8	2520.
4	14	51	0	0.079	0.0	0.0	2.5	1.9	19.1	25.0	2540.
4	14	51	15	0.078	0.0	0.0	2.7	2.3	19.2	25.0	2540.
4	14	51	30	0.079	0.0	0.0	2.6	2.1	19.4	24.7	2550.
4	14	51	45	0.078	0.0	0.0	2.8	2.1	19.6	24.8	2520.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
4	14	52	0	0.074	0.0	0.0	2.8	1.8	19.7	25.0	2510.
4	14	52	15	0.079	0.0	0.0	2.7	1.7	19.8	24.8	2520.
4	14	52	30	0.079	0.0	0.0	2.7	2.0	19.7	24.6	2520.
4	14	52	45	0.080	0.0	0.0	2.7	1.9	19.4	24.5	2550.
4	14	53	0	0.079	0.0	0.0	2.8	1.7	19.3	25.0	2540.
4	14	53	15	0.080	0.0	0.0	2.8	1.5	19.1	24.8	2520.
4	14	53	30	0.078	0.0	0.0	2.7	1.6	18.9	24.7	2550.
4	14	53	45	0.080	0.0	0.0	2.8	1.6	19.0	24.8	2520.
5	14	54	0	0.080	0.0	0.0	2.8	1.7	19.3	24.9	2420.
5	14	54	15	0.081	0.0	0.0	2.2	1.6	19.4	24.8	2500.
5	14	54	30	******	0.0	0.0	2.8	1.8	19.5	24.7	2500.
5	14	54	45	0.083	0.0	0.0	2.2	1.9	19.8	24.7	2500.
5	14	55	0	0.083	0.0	0.0	2.8	2.2	20.1	24.7	2510.
5	14	55	15	0.082	0.0	0.0	2.8	1.8	20.0	24.9	2530.
5	14	55	30	******	0.0	0.0	2.8	1.9	19.8	24.9	2510.
5	14	55	45	0.078	0.0	0.0	2.8	2.4	19.5	24.7	2500.
5	14	56	0	0.080	0.0	0.0	2.8	2.1	19.6	24.8	2500.
5	14	56	15	0.077	0.0	0.0	2.7	2.3	19.8	25.0	2540.
5	14	56	30	0.083	0.0	0.0	2.7	1.9	19.7	24.9	2540.
5	14	56	45	0.090	0.0	0.0	2.8	2.2	19.6	24.9	2500.
5	14	57	0	0.094	0.0	0.0	2.8	2.0	19.7	24.7	2500.
5	14	57	15	******	0.0	0.0	2.8	2.4	19.8	24.8	2510.
5	14	57	30	0.096	0.0	0.0	2.7	3.3	19.8	24.7	2530.
5	14	57	45	0.097	0.0	0.0	2.8	2.9	19.9	24.9	2520.
5	14	58	0	0.099	0.0	0.0	2.7	4.3	20.0	24.9	2520.
5	14	58	15	0.103	0.0	0.0	2.7	4.7	19.9	24.9	2520.
5	14	58	30	0.105	0.0	0.0	2.8	4.4	19.7	25.1	2500.
5	14	58	45	0.107	0.0	0.0	2.2	4.7	19.4	24.9	2510.
5	14	59	0	0.109	0.0	0.0	2.8	4.6	19.2	25.0	2520.
5	14	59	15	0.111	0.0	0.0	2.8	4.5	19.1	25.0	2500.
5	14	59	30	0.117	0.0	0.0	2.8	4.5	19.2	25.1	2540.
5	14	59	45	0.122	0.0	0.0	2.8	5.3	19.2	25.1	2520.
5	15	0	0	0.121	0.0	0.0	2.0	5.6	19.1	25.1	2530.
5	15	0	15	0.122	0.0	0.0	2.7	5.5	19.0	25.1	2550.
5	15	0	30	0.114	0.0	0.0	2.6	5.0	19.1	25.0	2530.
5	15	0	45	0.107	0.0	0.0	2.6	4.7	19.2	25.2	2500.
5	15	1	0	0.104	0.0	0.0	2.6	4.6	19.3	25.2	2540.
5	15	1	15	0.097	0.0	0.0	3.1	3.4	19.4	25.3	2520.
5	15	1	30	0.095	0.0	0.0	2.4	3.7	19.2	25.3	2510.
5	15	1	45	0.091	0.0	0.0	2.5	2.9	19.1	25.2	2520.
5	15	2	0	0.089	0.0	0.0	2.4	2.8	19.2	25.3	2520.
5	15	2	15	0.085	0.0	0.0	2.3	2.4	19.2	25.2	2520.
5	15	2	30	0.083	0.0	0.0	2.5	2.2	19.3	25.3	2520.
5	15	2	45	0.082	0.0	0.0	2.4	1.5	19.4	25.4	2540.
5	15	3	0	0.080	0.0	0.0	2.4	1.7	19.6	25.4	2530.
5	15	3	15	0.079	0.0	0.0	2.3	1.4	19.3	25.4	2510.
5	15	3	30	0.077	0.0	0.0	2.3	1.2	19.0	25.5	2510.
5	15	3	45	0.076	0.0	0.0	2.4	1.2	19.0	25.4	2530.
5	15	4	0	0.076	0.0	0.0	2.1	2.4	19.1	25.4	2530.
5	15	4	15	0.075	0.0	0.0	2.3	1.0	18.9	25.2	2520.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	15	4	30	0.074	0.0	0.0	2.3	1.3	18.9	25.5	2530.
5	15	4	45	0.075	0.0	0.0	2.4	1.2	19.1	25.4	2540.
5	15	5	0	0.074	0.0	0.0	2.4	1.1	19.3	25.5	2510.
5	15	5	15	0.074	0.0	0.0	2.5	1.2	19.3	25.5	2540.
5	15	5	30	0.074	0.0	0.0	2.4	1.3	19.2	25.4	2530.
5	15	5	45	0.075	0.0	0.0	2.4	1.3	19.3	25.6	2510.
5	15	6	0	0.074	0.0	0.0	2.4	1.2	19.5	25.5	2530.
5	15	6	15	0.074	0.0	0.0	2.3	1.2	19.6	25.6	2510.
5	15	6	30	0.075	0.0	0.0	2.5	1.2	19.5	25.6	2530.
5	15	6	45	0.074	0.0	0.0	2.2	1.5	19.2	25.5	2530.
5	15	7	0	0.072	0.0	0.0	2.1	1.6	19.0	25.7	2550.
5	15	7	15	0.074	0.0	0.0	2.2	1.4	18.9	25.6	2510.
5	15	7	30	0.074	0.0	0.0	******	1.3	19.1	25.6	2540.
5	15	7	45	0.075	0.0	0.0	2.2	1.5	19.2	25.6	2510.
6	15	8	0	0.075	0.0	0.0	2.1	1.3	19.2	25.7	2490.
6	15	8	15	0.074	0.0	0.0	2.1	1.6	19.0	25.8	2510.
6	15	8	30	0.073	0.0	0.0	2.1	1.6	18.8	25.7	2540.
6	15	8	45	0.074	0.0	0.0	2.0	1.3	19.0	25.6	2530.
6	15	9	0	0.075	0.0	0.0	2.1	1.3	19.3	25.8	2530.
6	15	9	15	0.074	0.0	0.0	2.0	1.3	19.5	25.6	2510.
6	15	9	30	0.074	0.0	0.0	2.1	1.3	19.4	25.6	2490.
6	15	9	45	0.074	0.0	0.0	2.0	1.5	19.1	25.8	2520.
6	15	10	0	0.074	0.0	0.0	2.0	1.2	18.7	25.8	2550.
6	15	10	15	0.073	0.0	0.0	2.0	1.0	18.7	25.6	2490.
6	15	10	30	0.074	0.0	0.0	2.0	1.1	19.1	25.5	2510.
6	15	10	45	0.074	0.0	0.0	2.2	1.3	19.4	25.9	2560.
6	15	11	0	0.074	0.0	0.0	2.2	1.2	19.2	25.9	2510.
6	15	11	15	0.076	0.0	0.0	2.1	1.4	19.0	25.9	25 0.
6	15	11	30	0.075	0.0	0.0	2.0	1.2	19.0	25.9	2640.
6	15	11	45	******	0.0	0.0	1.9	1.4	19.0	25.7	2610.
7	15	12	0	0.076	0.0	0.0	2.1	1.4	19.2	25.6	2570.
7	15	12	15	0.076	0.0	0.0	2.1	2.9	19.2	25.8	2690.
7	15	12	30	0.075	0.0	0.0	1.8	2.4	19.1	25.6	2640.
7	15	12	45	0.074	0.0	0.0	2.2	1.6	19.1	25.6	2580.
7	15	13	0	0.075	0.0	0.0	2.2	1.8	19.1	25.6	2570.
7	15	13	15	0.075	0.0	0.0	2.2	1.2	19.2	25.5	2580.
7	15	13	30	0.074	0.0	0.0	2.2	1.0	19.4	25.6	2590.
7	15	13	45	0.074	0.0	0.0	2.0	1.2	19.4	25.6	2570.
7	15	14	0	0.075	0.0	0.0	2.3	1.2	19.2	25.8	2590.
7	15	14	15	0.073	0.0	0.0	2.3	1.3	19.1	25.6	2590.
7	15	14	30	0.073	0.0	0.001	2.2	1.3	19.0	25.6	2590.
7	15	14	45	0.073	0.0	0.001	2.3	1.3	19.0	25.5	2590.
7	15	15	0	0.074	0.0	0.002	2.2	1.2	19.3	25.5	2610.
7	15	15	15	0.075	0.0	0.0	2.4	1.4	19.7	25.6	2590.
7	15	15	30	0.076	0.0	0.0	2.4	1.6	19.9	25.5	2580.
7	15	15	45	0.077	0.0	0.0	2.5	1.7	20.0	25.5	2590.
7	15	16	0	0.077	0.0	0.0	2.4	1.6	19.8	25.6	2650.
7	15	16	15	0.076	0.0	0.0	2.4	1.4	19.5	25.4	2580.
7	15	16	30	0.079	0.0	0.0	2.4	1.6	19.3	25.4	2570.
7	15	16	45	0.080	0.0	0.0	2.3	1.4	19.1	25.5	2600.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
	7	15	17	0	0.079	0.0	0.0	2.4	1.4	19.1	25.2	2570.
	7	15	17	15	0.080	0.0	0.0	2.3	1.8	19.0	25.4	2570.
	7	15	17	30	0.084	0.0	0.0	2.5	3.5	19.3	25.2	2570.
	7	15	17	45	0.088	0.0	0.0	2.7	3.1	19.3	25.2	2580.
	7	15	18	0	0.093	0.0	0.0	2.5	3.9	19.4	25.5	2580.
	7	15	18	15	0.100	0.0	0.0	2.4	4.7	19.2	25.5	2590.
	7	15	18	30	0.099	0.0	0.0	2.4	3.3	18.9	25.5	2590.
	7	15	18	45	0.099	0.0	0.001	2.6	4.0	19.1	25.4	2590.
	7	15	19	0	0.104	0.0	0.002	2.5	4.9	19.3	25.4	2590.
	7	15	19	15	0.115	0.0	0.003	2.5	1.8	19.5	25.4	2580.
	7	15	19	30	0.114	0.0	0.003	2.7	5.1	19.8	25.2	2590.
	7	15	19	45	0.115	0.0	0.004	2.8	5.5	19.9	25.3	2570.
	7	15	20	0	0.114	0.0	0.005	2.8	4.5	19.8	25.3	2640.
	7	15	20	15	0.117	0.0	0.004	2.8	5.2	19.8	25.2	2550.
	7	15	20	30	0.119	0.0	0.005	2.7	4.6	20.0	25.2	2600.
	8	15	21	0	0.119	0.0	0.0	2.8	5.1	20.2	25.2	2590.
	8	15	21	15	0.118	0.0	0.002	2.8	5.5	20.1	25.3	2580.
	8	15	21	30	0.115	0.0	0.0	2.7	5.5	20.0	25.0	2570.
	8	15	21	45	0.116	0.0	0.0	2.8	5.3	20.0	25.1	2600.
	8	15	22	0	0.114	0.0	0.0	2.7	5.6	20.1	25.0	2580.
	8	15	22	15	0.111	0.0	0.0	2.8	7.4	20.1	25.2	2590.
	8	15	22	30	0.116	0.0	0.0	2.6	7.5	19.9	25.2	2580.
	8	15	22	45	0.115	0.0	0.0	2.7	6.5	19.6	25.2	2570.
	8	15	23	0	0.111	0.0	0.0	2.7	6.3	19.2	25.1	2600.
	8	15	23	15	0.113	0.0	0.0	2.5	5.1	19.3	25.2	2580.
	0	15	23	30	0.113	0.0	0.0	2.4	6.5	19.7	25.2	2370.
	0	15	24	0	0.102	0.0	0.0	2.6	5.8	20.0	25.3	2220.
	0	15	24	30	0.102	0.0	0.0	2.6	5.0	20.2	25.2	2040.
	0	15	25	0	0.100	0.0	0.0	2.5	5.2	20.1	25.4	1960.
S	1	15	25	15	0.097	0.0	0.0	2.6	5.2	20.0	25.5	1500.
S	1	15	25	30	0.108	0.0	0.0	2.5	4.7	20.1	25.6	1600.
S	1	15	25	45	0.107	0.0	0.001	2.5	6.6	20.1	26.1	1650.
S	1	15	26	0	0.101	0.0	0.0	2.5	5.1	20.2	26.1	1700.
S	1	15	26	15	0.100	0.0	0.0	2.7	5.0	20.2	26.1	1800.
S	1	15	26	30	0.099	0.0	0.0	2.8	6.2	20.2	26.2	1850.
S	1	15	26	45	0.104	0.0	0.0	2.6	4.9	20.0	26.3	1950.
S	1	15	27	0	0.112	0.0	0.0	2.7	5.0	20.1	26.0	2000.
S	1	15	27	15	0.114	0.0	0.0	2.6	7.6	20.0	26.3	2150.
S	1	15	27	30	0.104	0.0	0.0	2.5	6.4	19.8	26.3	2250.
S	1	15	27	45	0.103	0.0	0.0	2.7	6.1	19.5	26.1	2350.
S	1	15	28	0	0.104	0.0	0.0	2.7	5.3	19.4	26.1	2500.
S	1	15	28	15	0.102	0.0	0.0	2.0	5.0	19.4	26.0	2600.
S	1	15	28	30	0.104	0.0	0.0	2.7	5.1	19.4	25.9	2700.
S	1	15	28	45	0.115	0.0	0.0	2.8	4.3	19.7	25.9	2800.
S	1	15	29	0	0.117	0.0	0.001	2.7	6.2	19.8	25.6	2900.
S	1	15	29	15	0.110	0.0	0.0	2.6	7.9	19.7	25.4	3000.
S	1	15	29	30	0.108	0.0	0.0	2.6	5.9	19.5	25.1	3150.
S	1	15	30	30	0.104	0.0	0.0	2.8	5.0	19.4	24.3	3250.
S	1	15	31	0	0.113	0.0	0.0	2.0	4.5	19.4	23.8	3350.
S	1	15	31	30	0.117	0.0	0.0	2.0	4.8	18.9	23.8	3450.

TULSA FLIGHT NUMBER IS DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	15	31	45	0.115	0.0	0.0	2.8	7.2	18.5	23.3	3600.
S 1	15	32	0	0.113	0.0	0.0	2.8	5.2	18.2	23.2	3700.
S 1	15	32	15	0.116	0.0	0.0	2.7	5.1	18.2	22.7	3800.
S 1	15	32	30	0.114	0.0	0.0	2.0	4.8	18.1	22.4	3900.
S 1	15	32	45	0.112	0.0	0.0	2.0	4.9	18.3	22.4	4000.
S 1	15	33	0	0.114	0.0	0.003	2.0	5.7	******	22.0	4100.
S 1	15	33	15	0.120	0.0	0.0	2.0	4.8	16.9	22.0	4250.
S 1	15	33	30	0.119	0.0	0.0	2.0	4.9	16.8	21.6	4350.
S 1	15	33	45	0.117	0.0	0.0	2.7	5.6	16.8	21.6	4500.
S 1	15	34	0	0.110	0.0	0.0	2.8	3.7	16.7	21.2	4600.
S 1	15	34	15	0.113	0.0	0.0	2.0	4.4	16.5	21.0	4700.
S 1	15	34	30	0.115	0.0	0.0	2.7	4.0	16.3	20.9	4800.
S 1	15	34	45	0.113	0.0	0.0	2.7	3.2	16.1	20.8	4900.
S 1	15	35	0	0.113	0.0	0.0	2.0	4.8	15.9	20.4	5000.
S 1	15	35	15	0.110	0.0	0.0	2.7	3.1	15.6	20.0	5100.
S 1	15	35	30	0.102	0.0	0.0	2.6	2.7	15.2	20.0	5200.
S 1	15	35	45	0.099	0.0	0.0	2.5	3.0	14.8	20.1	5300.
S 1	15	36	0	0.092	0.0	0.0	2.1	1.8	14.2	19.6	5350.
S 1	15	36	15	0.096	0.0	0.0	2.6	2.1	14.0	19.3	5450.
S 1	15	36	30	0.099	0.0	0.0	2.1	0.8	13.9	19.3	5550.
S 1	15	36	45	0.095	0.0	0.0	2.5	2.0	14.0	19.0	5650.
S 1	15	37	0	0.095	0.0	0.0	2.4	2.2	14.0	18.7	5750.
S 1	15	37	15	0.090	0.0	0.0	2.3	1.2	13.4	18.7	5800.
S 1	15	37	30	0.083	0.0	0.0	3.6	0.5	12.5	18.4	5900.
S 1	15	37	45	0.081	0.0	0.0	3.9	0.7	12.5	18.2	6000.
S 1	15	38	0	0.092	0.0	0.0	2.3	2.5	12.7	17.8	6100.
S 1	15	38	15	0.095	0.0	0.0	2.0	2.4	12.7	17.7	6200.
S 1	15	38	30	0.097	0.0	0.0	2.2	2.0	12.4	17.6	6300.
S 1	15	38	45	0.091	0.0	0.0	2.1	1.4	11.6	17.5	6400.
S 1	15	39	0	0.086	0.0	0.0	3.7	0.4	10.8	17.2	6450.
S 1	15	39	15	0.080	0.0	0.0	1.6	0.2	9.9	17.3	6550.
S 1	15	39	30	0.080	0.0	0.0	3.4	0.3	8.9	17.0	6650.
S 1	15	39	45	0.079	0.0	0.0	3.3	0.3	8.1	17.0	6750.
S 1	15	40	0	0.078	0.0	0.0	3.4	0.3	7.7	16.8	6800.
S 1	15	40	15	0.079	0.0	0.0	3.4	0.2	7.0	16.9	6900.
S 1	15	40	30	0.078	0.0	0.0	3.4	0.2	6.7	16.5	7000.
S 1	15	40	45	0.077	0.0	0.0	2.8	0.2	6.3	16.6	7050.
S 1	15	41	0	0.069	0.0	0.0	2.8	0.2	6.2	16.8	7100.
S 1	15	41	15	0.071	0.0	0.0	2.9	0.2	5.7	16.3	7200.
S 1	15	41	30	0.069	0.0	0.0	2.8	0.2	4.2	16.3	7250.
S 1	15	41	45	0.067	0.0	0.0	2.7	0.1	2.0	16.3	7350.
S 1	15	42	0	0.062	0.0	0.0	2.7	0.1	0.7	16.6	7450.
S 1	15	42	15	0.063	0.0	0.0	2.7	0.1	0.4	16.4	7550.
S 1	15	42	30	0.061	0.0	0.0	2.6	0.1	-0.3	16.2	7600.
S 1	15	42	45	0.060	0.0	0.0	2.6	0.2	-1.0	16.3	7700.
S 1	15	43	0	0.059	0.0	0.0	2.6	0.1	-1.3	16.5	7800.
S 1	15	43	15	0.060	0.0	0.0	2.7	0.2	-1.5	16.3	7900.
S 1	15	43	30	0.061	0.0	0.0	2.7	0.1	-1.6	16.0	7950.
S 1	15	43	45	0.062	0.0	0.0	2.5	0.2	-2.0	15.9	8000.
S 1	15	44	0	0.063	0.0	0.0	2.6	0.1	-2.6	16.0	8100.

TULSA FLIGHT NUMBER 15 DATE: 9- 8

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	15	44	15	0.064	0.0	0.0	2.6	0.2	-3.2	15.9	8200.
S 1	15	44	30	0.063	0.0	0.0	2.6	0.2	-3.7	15.8	8300.
S 1	15	44	45	0.065	0.0	0.0	2.4	0.2	-4.0	15.4	8400.
S 1	15	45	0	0.063	0.0	0.0	2.5	0.1	-4.2	15.4	8500.
S 1	15	45	15	0.064	0.0	0.0	2.5	0.1	-4.0	15.4	8600.
S 1	15	45	30	0.062	0.0	0.0	2.5	0.1	-3.6	15.1	8700.
S 1	15	45	45	0.062	0.0	0.0	2.5	0.1	-2.8	15.1	8800.
S 1	15	46	0	0.062	0.0	0.0	2.5	0.1	-1.9	14.9	8900.
S 1	15	46	15	0.065	0.0	0.0	2.5	0.1	-1.3	14.6	9000.
S 1	15	46	30	0.065	0.0	0.0	2.6	0.1	-1.2	14.2	9100.
S 1	15	46	45	0.066	0.0	0.0	2.6	0.2	-1.4	14.2	9200.
S 1	15	47	0	0.066	0.0	0.0	2.5	0.1	-1.7	14.0	9250.
S 1	15	47	15	0.065	0.0	0.0	2.6	0.2	-2.1	14.0	9350.
S 1	15	47	30	0.064	0.0	0.0	0.5	0.1	-2.6	13.5	9450.
S 1	15	47	45	0.066	0.0	0.001	0.5	0.1	-2.8	13.7	9550.
S 1	15	48	0	0.067	0.0	0.0	0.5	0.1	-2.9	13.4	9650.
S 1	15	48	15	0.066	0.0	0.0	0.5	0.1	-3.0	12.9	9700.
S 1	15	48	30	0.066	0.0	0.0	0.8	0.1	-3.4	13.1	9800.
S 1	15	48	45	0.062	0.0	0.0	0.5	0.1	-4.0	12.7	9900.
S 1	15	49	0	0.061	0.0	0.0	0.7	0.1	-4.6	12.6	9950.
S 1	15	49	15	0.061	0.0	0.0	0.6	0.1	-4.8	12.5	10000.
S 1	15	49	30	0.061	0.0	0.0	0.7	0.2	-4.9	12.0	10100.
S 1	15	49	45	0.059	0.0	0.0	0.5	0.2	-4.9	12.1	10250.
S 1	15	50	0	0.061	0.0	0.0	0.5	0.1	-5.0	11.8	10350.
S 1	15	50	15	0.061	0.0	0.0	0.7	0.1	-5.1	11.8	10500.
S 1	15	50	30	0.062	0.0	0.0	0.5	0.1	-5.2	11.4	10600.
S 1	15	50	45	0.060	0.0	0.0	0.6	0.1	-5.6	11.1	10750.
S 1	15	51	0	0.062	0.0	0.0	0.6	0.1	-6.0	10.8	10850.
S 1	15	51	15	0.063	0.0	0.0	0.6	0.1	-6.1	10.7	11000.
S 1	15	51	30	0.062	0.0	0.0	0.6	0.0	-6.0	10.4	11100.
S 1	15	51	45	0.061	0.0	0.0	0.6	0.1	-6.1	10.1	11250.
S 1	15	52	0	0.063	0.0	0.0	0.6	0.1	-6.1	9.8	11250.
S 1	15	52	15	0.064	0.0	0.0	0.6	0.2	-6.4	9.4	11500.
S 1	15	52	30	0.064	0.0	0.0	0.7	0.1	-6.7	9.4	11600.
S 1	15	52	45	0.060	0.0	0.0	0.7	0.1	-7.2	9.0	11750.
S 1	15	53	0	0.058	0.0	0.0	0.7	0.1	-7.9	8.6	11850.
S 1	15	53	15	0.050	0.0	0.0	0.7	0.1	-8.7	8.5	12000.

TULSA FLIGHT NUMBER 16 DATE: 9-11-1977

LEG	HR : MIN : SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5 : 24 : 15	0.062	0.0	0.0	2.0	32.7	20.1	22.6	1500.
S 1	5 : 24 : 30	0.063	0.0	0.0	2.1	11.0	19.8	22.5	1550.
S 1	5 : 24 : 45	0.067	0.0	0.0	1.9	15.2	19.3	22.5	1650.
S 1	5 : 25 : 0	0.071	0.0	0.0	2.2	10.9	19.0	22.5	1700.
S 1	5 : 25 : 15	0.074	0.0	0.0	2.1	6.4	18.8	22.4	1800.
S 1	5 : 25 : 30	0.075	0.0	0.0	1.9	16.8	18.4	22.4	1850.
S 1	5 : 25 : 45	0.075	0.0	0.0	1.8	8.7	18.2	22.4	1950.
S 1	5 : 26 : 0	0.075	0.0	0.0	2.0	22.8	18.3	22.3	2000.
S 1	5 : 26 : 15	0.076	0.0	0.0	2.2	11.3	18.7	22.3	2100.
S 1	5 : 26 : 30	0.078	0.0	0.0	1.9	35.9	18.8	22.2	2150.
S 1	5 : 26 : 45	0.078	0.0	0.0	1.9	11.3	18.7	22.2	2250.
S 1	5 : 27 : 0	0.076	0.0	0.0	2.1	4.2	18.6	22.2	2350.
S 1	5 : 27 : 15	0.076	0.0	0.0	2.1	6.1	18.5	22.1	2400.
S 1	5 : 27 : 30	0.076	0.0	0.0	1.9	5.1	18.3	22.1	2500.
S 1	5 : 27 : 45	0.075	0.0	0.0	1.7	9.1	18.3	22.1	2600.
S 1	5 : 28 : 0	0.074	0.0	0.0	1.7	7.1	18.1	22.0	2650.
S 1	5 : 28 : 15	0.074	0.0	0.0	1.5	10.3	17.9	22.0	2750.
S 1	5 : 28 : 30	0.073	0.0	0.0	1.9	12.0	17.9	21.9	2850.
S 1	5 : 28 : 45	0.073	0.0	0.0	1.8	8.5	17.9	21.8	2900.
S 1	5 : 29 : 0	0.073	0.0	0.0	1.9	8.6	17.9	21.7	3000.
S 1	5 : 29 : 15	0.073	0.0	0.0	1.9	9.1	17.8	21.6	3100.
S 1	5 : 29 : 30	0.072	0.0	0.0	1.7	9.8	17.3	21.5	3150.
S 1	5 : 29 : 45	0.071	0.0	0.0	1.6	2.4	16.5	21.4	3250.
S 1	5 : 30 : 0	0.072	0.0	0.0	1.6	13.9	15.9	21.3	3350.
S 1	5 : 30 : 15	0.074	0.0	0.0	1.4	11.0	15.9	21.2	3400.
S 1	5 : 30 : 30	0.078	0.0	0.0	1.2	5.7	16.2	21.1	3500.
S 1	5 : 30 : 45	0.081	0.0	0.0	1.1	4.1	16.3	20.9	3600.
S 1	5 : 31 : 0	0.078	0.0	0.0	0.9	3.8	16.0	20.8	3650.
S 1	5 : 31 : 15	0.078	0.0	0.0	0.9	2.6	15.0	20.6	3750.
S 1	5 : 31 : 30	0.076	0.0	0.0	0.9	1.4	13.5	20.5	3850.
S 1	5 : 31 : 45	0.067	0.0	0.0	0.8	1.7	12.1	20.4	3900.
S 1	5 : 32 : 0	0.066	0.0	0.0	1.1	2.0	11.2	20.3	4000.
S 1	5 : 32 : 15	0.067	0.0	0.0	1.1	1.0	11.0	19.7	4100.
S 1	5 : 32 : 30	0.068	0.0	0.0	1.0	1.7	10.9	19.7	4150.
S 1	5 : 32 : 45	0.068	0.0	0.0	0.9	0.7	10.9	19.5	4250.
S 1	5 : 33 : 0	0.068	0.0	0.0	0.8	0.3	10.7	19.4	4350.
S 1	5 : 33 : 15	0.068	0.0	0.0	1.0	0.2	10.4	19.4	4400.
S 1	5 : 33 : 30	0.067	0.0	0.0	0.8	0.1	10.1	19.3	4500.
S 1	5 : 33 : 45	0.066	0.0	0.0	0.7	0.0	9.5	19.2	4600.
S 1	5 : 34 : 0	0.066	0.0	0.0	0.6	0.0	9.1	19.1	4650.
S 1	5 : 34 : 15	0.066	0.0	0.0	0.6	0.0	8.9	19.1	4750.
S 1	5 : 34 : 30	0.067	0.0	0.0	0.5	0.0	9.1	19.0	4850.
S 1	5 : 34 : 45	0.070	0.0	0.0	0.6	0.0	9.6	18.9	4900.
S 1	5 : 35 : 0	0.070	0.0	0.0	0.8	0.0	10.5	18.8	5000.
S 1	5 : 35 : 15	0.079	0.0	0.0	0.7	0.2	12.3	18.6	5050.
S 1	5 : 35 : 30	0.087	0.0	0.0	0.9	0.5	14.0	18.5	5150.
S 1	5 : 35 : 45	0.085	0.0	0.0	0.7	0.6	14.9	18.5	5250.
S 1	5 : 36 : 0	0.087	0.0	0.0	0.9	0.7	15.2	18.3	5300.
S 1	5 : 36 : 15	0.084	0.0	0.0	0.7	0.7	15.3	18.2	5400.
S 1	5 : 36 : 30	0.083	0.0	0.0	0.8	0.7	15.2	18.1	5440.

TULSA FLIGHT NUMBER 16

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	5	36	45	0.078	0.0	0.0	0.8	0.6	15.0	17.9	5550.
S	1	5	37	0	0.076	0.0	0.0	0.8	0.4	15.0	17.8	5600.
S	1	5	37	15	0.077	0.0	0.0	0.7	0.4	15.2	17.5	5700.
S	1	5	37	30	0.079	0.0	0.0	0.8	0.4	15.3	17.5	5750.
S	1	5	37	45	0.081	0.0	0.0	0.6	0.3	15.1	17.3	5850.
S	1	5	38	0	0.082	0.0	0.0	0.7	0.3	14.9	17.1	5900.
S	1	5	38	15	0.079	0.0	0.0	0.6	0.2	14.6	16.9	6000.
S	1	5	38	30	0.074	0.0	0.0	0.6	0.2	14.4	16.8	6050.
S	1	5	38	45	0.074	0.0	0.0	0.7	0.1	14.1	16.7	6150.
S	1	5	39	0	0.071	0.0	0.0	0.7	0.1	13.8	16.5	6250.
S	1	5	39	15	0.070	0.0	0.0	0.8	0.1	13.8	16.3	6300.
S	1	5	39	30	0.068	0.0	0.0	0.7	0.0	14.2	16.2	6400.
S	1	5	39	45	0.067	0.0	0.0	0.8	0.0	14.4	16.1	6450.
S	1	5	40	0	0.068	0.0	0.0	0.9	0.0	14.5	16.0	6550.
S	1	5	40	15	0.071	0.0	0.0	0.8	0.0	14.4	15.8	6600.
S	1	5	40	30	0.072	0.0	0.0	0.8	0.0	14.1	15.7	6700.
S	1	5	40	45	0.068	0.0	0.0	0.8	0.0	13.9	15.6	6750.
S	1	5	41	0	0.067	0.0	0.0	0.8	0.0	13.7	15.4	6850.
S	1	5	41	15	0.067	0.0	0.0	0.8	0.0	13.6	15.4	6900.
S	1	5	41	30	0.065	0.0	0.0	0.8	0.0	13.5	15.2	7000.
S	1	5	41	45	0.066	0.0	0.0	0.8	0.0	13.2	15.0	7100.
S	1	5	42	0	0.066	0.0	0.0	0.9	0.0	12.3	14.9	7200.
S	1	5	42	15	0.063	0.0	0.0	0.7	0.0	10.3	14.8	7250.
S	1	5	42	30	0.062	0.0	0.0	0.6	0.0	7.5	14.7	7350.
S	1	5	42	45	0.063	0.0	0.0	0.6	0.0	5.7	14.5	7450.
S	1	5	43	0	0.064	0.0	0.0	0.6	0.0	5.8	14.5	7550.
S	1	5	43	15	0.064	0.0	0.0	0.7	0.0	7.2	14.3	7650.
S	1	5	43	30	0.065	0.0	0.0	0.7	0.0	8.4	14.2	7750.
S	1	5	43	45	0.066	0.0	0.0	0.6	0.0	9.0	14.1	7800.
S	1	5	44	0	0.066	0.0	0.0	0.8	0.0	9.0	14.0	7900.
S	1	5	44	15	0.067	0.0	0.0	0.8	0.0	8.9	13.8	8000.
S	1	5	44	30	0.067	0.0	0.0	0.8	0.0	9.0	13.6	8100.
S	1	5	44	45	0.066	0.0	0.0	0.7	0.0	9.3	14.1	8200.
S	1	5	45	0	0.067	0.0	0.0	0.6	0.0	9.5	13.9	8250.
S	1	5	45	15	0.066	0.0	0.0	0.7	0.0	9.7	13.8	8350.
S	1	5	45	30	0.066	0.0	0.0	0.8	0.0	9.7	13.6	8450.
S	1	5	45	45	0.065	0.0	0.0	0.8	0.0	9.7	13.3	8550.
S	1	5	46	0	0.065	0.0	0.0	0.9	0.0	9.7	13.3	8650.
S	1	5	46	15	0.067	0.0	0.0	0.9	0.0	9.5	12.9	8750.
S	1	5	46	30	0.068	0.0	0.0	0.9	0.0	9.5	12.8	8800.
S	1	5	46	45	0.068	0.0	0.0	0.9	0.0	9.4	12.5	8900.
S	1	5	47	0	0.070	0.0	0.0	1.0	0.0	9.2	12.4	9000.
S	1	5	47	15	0.070	0.0	0.0	0.9	0.0	9.1	12.1	9100.
S	1	5	47	30	0.069	0.0	0.0	0.9	0.0	9.0	11.8	9150.
S	1	5	47	45	0.067	0.0	0.0	0.7	0.0	8.9	11.6	9250.
S	1	5	48	0	0.067	0.0	0.0	0.8	0.0	8.6	11.4	9350.
S	1	5	48	15	0.066	0.0	0.0	0.8	0.0	8.5	11.3	9400.
S	1	5	48	30	0.065	0.0	0.0	0.8	0.0	8.4	11.1	9500.
S	1	5	48	45	0.066	0.0	0.0	0.7	0.0	8.3	10.8	9600.
S	1	5	49	0	0.069	0.0	0.0	0.9	0.0	8.2	10.6	9650.

TULSA FLIGHT NUMBER 16

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	5	49	15	0.070	0.0	0.0	0.9	0.0	7.8	10.3	9750.
S	1	5	49	30	0.070	0.0	0.0	0.8	0.0	7.5	10.1	9850.
S	1	5	49	45	0.068	0.0	0.0	0.9	0.0	7.2	9.9	9900.
S	1	5	50	0	0.068	0.0	0.0	0.8	0.0	7.1	9.7	10000.
	1	5	59	15	0.073	0.0	0.0	1.5	0.9	13.3	21.1	2560.
	1	5	59	30	0.072	0.0	0.0	1.7	1.0	15.5	21.5	2590.
	1	5	59	45	0.071	0.0	0.0	1.5	0.6	16.6	21.7	2580.
	1	6	0	0	0.071	0.0	0.0	1.5	0.8	17.0	22.0	2560.
	1	6	0	15	0.072	0.0	0.0	1.6	0.6	17.2	22.1	2600.
	1	6	0	30	0.072	0.0	0.0	1.7	0.6	17.2	22.4	2620.
	1	6	0	45	0.073	0.0	0.0	1.5	0.5	17.5	22.7	2610.
	1	6	1	0	0.070	0.0	0.0	1.7	0.3	17.6	22.8	2540.
	1	6	1	15	0.072	0.0	0.0	1.6	0.4	17.6	22.9	2540.
	1	6	1	30	0.072	0.0	0.0	1.6	0.4	17.5	23.0	2620.
	1	6	1	45	0.071	0.0	0.0	1.5	0.3	17.7	23.0	2620.
	1	6	2	0	0.072	0.0	0.0	1.7	0.2	18.0	23.0	2620.
	1	6	2	15	0.073	0.0	0.0	1.6	0.2	18.1	23.1	2610.
	1	6	2	30	0.072	0.0	0.0	1.6	0.2	18.0	23.1	2610.
	1	6	2	45	0.074	0.0	0.0	1.7	0.2	17.9	23.2	2620.
	1	6	3	0	0.073	0.0	0.0	1.6	0.2	17.8	23.2	2610.
	1	6	3	15	0.074	0.0	0.0	1.6	0.2	17.6	23.2	2610.
	1	6	3	30	0.073	0.0	0.0	1.6	0.1	17.5	23.1	2610.
	1	6	3	45	0.073	0.0	0.0	1.7	0.2	17.7	23.3	2610.
	1	6	4	0	0.074	0.0	0.0	1.4	0.2	17.8	23.2	2610.
	1	6	4	15	0.075	0.0	0.0	1.6	0.4	17.6	23.1	2610.
	1	6	4	30	0.073	0.0	0.0	1.5	0.2	17.4	23.1	2610.
	1	6	4	45	0.072	0.0	0.0	1.5	0.3	17.5	23.2	2610.
	1	6	5	0	0.072	0.0	0.0	1.4	0.2	17.5	23.1	2610.
	1	6	5	15	0.071	0.0	0.0	1.7	0.2	17.7	23.0	2600.
	1	6	5	30	0.072	0.0	0.0	1.8	0.2	17.8	23.0	2600.
	1	6	5	45	0.072	0.0	0.0	1.6	0.2	17.6	22.9	2610.
	1	6	6	0	0.074	0.0	0.0	1.8	0.2	17.5	23.0	2620.
	1	6	6	15	0.073	0.0	0.0	1.6	0.2	17.4	22.9	2610.
	1	6	6	30	0.073	0.0	0.0	1.5	0.4	17.6	22.9	2600.
	1	6	6	45	0.074	0.0	0.0	1.6	0.2	17.8	22.8	2610.
	1	6	7	0	0.074	0.0	0.0	1.7	0.2	17.8	22.8	2620.
	1	6	7	15	0.074	0.0	0.0	1.4	0.2	17.8	22.7	2620.
	1	6	7	30	0.074	0.0	0.0	1.6	0.2	17.9	22.9	2620.
	1	6	7	45	0.073	0.0	0.0	1.7	0.4	18.0	22.9	2640.
	1	6	8	0	0.073	0.0	0.0	1.7	0.4	18.1	22.9	2640.
	1	6	8	15	0.073	0.0	0.0	1.7	0.4	18.3	23.0	2640.
	1	6	8	30	0.073	0.0	0.0	1.7	0.3	18.2	22.9	2640.
	1	6	8	45	0.073	0.0	0.0	1.9	0.4	18.2	22.8	2640.
	1	6	9	0	0.074	0.0	0.0	1.6	0.4	18.0	22.8	2630.
	1	6	9	15	0.073	0.0	0.0	1.8	0.2	18.0	23.0	2620.
	1	6	9	30	0.074	0.0	0.0	1.6	0.4	17.9	22.9	2620.
	1	6	9	45	0.075	0.0	0.0	1.8	0.3	17.8	22.8	2610.
	1	6	10	0	0.075	0.0	0.0	1.8	0.3	17.8	23.0	2620.
	1	6	10	15	0.075	0.0	0.0	1.6	0.3	17.8	22.7	2600.
	1	6	10	30	0.076	0.0	0.0	2.0	0.3	17.9	22.7	2600.

TULSA FLIGHT NUMBER 16 DATE: 4-11

LEG	HR : MIN : SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6 : 10 : 45	0.076	0.0	0.0	2.1	0.4	18.1	22.7	2600.
1	6 : 11 : 0	0.076	0.0	0.0	1.8	0.4	18.2	22.6	2630.
1	6 : 11 : 15	0.076	0.0	0.0	1.8	0.6	18.2	22.6	2600.
1	6 : 11 : 30	0.076	0.0	0.0	1.9	1.0	18.2	22.4	2610.
1	6 : 11 : 45	0.076	0.0	0.0	1.9	1.1	18.4	22.6	2620.
1	6 : 12 : 0	0.076	0.0	0.0	2.0	1.1	18.6	22.5	2630.
1	6 : 12 : 15	0.076	0.0	0.0	2.0	1.1	18.7	22.3	2620.
1	6 : 12 : 30	0.076	0.0	0.0	1.9	1.0	18.7	22.4	2610.
1	6 : 12 : 45	0.076	0.0	0.0	2.1	1.2	18.6	22.4	2620.
1	6 : 13 : 0	0.076	0.0	0.0	2.0	1.0	18.6	22.3	2630.
1	6 : 13 : 15	0.075	0.0	0.0	2.0	0.7	18.8	22.2	2620.
1	6 : 13 : 30	0.074	0.0	0.0	2.0	1.5	19.0	22.2	2630.
1	6 : 13 : 45	0.074	0.0	0.0	1.8	2.3	19.1	22.1	2610.
1	6 : 14 : 0	0.073	0.0	0.0	2.0	2.6	18.9	22.0	2610.
1	6 : 14 : 15	0.074	0.0	0.0	1.9	2.1	19.0	22.0	2620.
1	6 : 14 : 30	0.076	0.0	0.0	2.1	2.1	18.9	21.8	2600.
1	6 : 14 : 45	0.076	0.0	0.0	1.9	1.7	19.0	21.9	2620.
2	6 : 15 : 0	0.077	0.0	0.0	1.9	2.2	19.0	21.8	2600.
2	6 : 15 : 15	0.076	0.0	0.0	1.8	1.6	19.0	21.7	2630.
2	6 : 15 : 30	0.075	0.0	0.0	2.0	2.6	18.9	21.6	2630.
2	6 : 15 : 45	0.075	0.0	0.0	2.0	2.5	18.9	21.8	2620.
2	6 : 16 : 0	0.075	0.0	0.0	1.8	1.6	18.9	21.5	2590.
2	6 : 16 : 15	0.074	0.0	0.0	1.9	2.8	18.7	21.6	2600.
2	6 : 16 : 30	0.076	0.0	0.0	2.0	2.4	18.5	21.7	2610.
2	6 : 16 : 45	0.077	0.0	0.0	2.0	2.4	18.6	21.5	2600.
2	6 : 17 : 0	0.078	0.0	0.0	2.2	3.0	18.8	21.6	2610.
2	6 : 17 : 15	0.078	0.0	0.0	2.0	2.0	19.0	21.5	2590.
2	6 : 17 : 30	0.079	0.0	0.0	2.1	2.8	18.9	21.6	2610.
2	6 : 17 : 45	0.080	0.0	0.0	2.1	3.2	18.8	21.6	2610.
2	6 : 18 : 0	0.080	0.0	0.0	2.1	2.2	18.7	21.4	2630.
2	6 : 18 : 15	0.078	0.0	0.0	2.0	2.7	18.7	22.2	2630.
3	6 : 18 : 30	0.078	0.0	0.0	2.1	2.2	18.7	21.5	2590.
3	6 : 18 : 45	0.078	0.0	0.0	2.1	1.6	18.7	21.5	2590.
3	6 : 19 : 0	0.079	0.0	0.0	2.1	2.4	18.5	21.4	2590.
3	6 : 19 : 15	0.078	0.0	0.0	2.2	2.2	18.5	21.5	2590.
3	6 : 19 : 30	0.078	0.0	0.0	2.2	2.0	18.6	21.6	2600.
3	6 : 19 : 45	0.078	0.0	0.0	2.0	1.5	18.8	21.4	2610.
3	6 : 20 : 0	0.078	0.0	0.0	2.1	1.4	18.8	21.6	2610.
3	6 : 20 : 15	0.078	0.0	0.0	2.4	1.7	18.5	21.6	2600.
3	6 : 20 : 30	0.078	0.0	0.0	2.2	1.4	18.2	21.7	2600.
3	6 : 20 : 45	0.078	0.0	0.0	1.9	2.7	18.1	21.8	2600.
3	6 : 21 : 0	0.077	0.0	0.0	2.2	2.0	18.2	21.7	2600.
3	6 : 21 : 15	0.078	0.0	0.0	2.2	1.6	18.4	21.6	2610.
3	6 : 21 : 30	0.077	0.0	0.0	2.2	2.3	18.4	21.7	2600.
3	6 : 21 : 45	0.077	0.0	0.0	2.1	1.6	18.4	21.8	2620.
3	6 : 22 : 0	0.076	0.0	0.0	1.9	0.8	18.3	21.7	2620.
3	6 : 22 : 15	0.076	0.0	0.0	1.9	1.3	18.3	21.9	2630.
3	6 : 22 : 30	0.076	0.0	0.0	2.0	1.0	18.2	21.8	2630.
3	6 : 22 : 45	0.076	0.0	0.0	1.9	0.7	18.1	22.0	2630.
3	6 : 23 : 0	0.076	0.0	0.0	1.9	0.4	18.1	21.9	2600.

TULSA FLIGHT NUMBER 16 DATE: 9-11

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	6	23	15	0.076	0.0	0.0	2.0	0.4	18.3	21.9	2620.
3	6	23	30	0.076	0.0	0.0	2.0	0.4	18.6	21.9	2620.
3	6	23	45	0.076	0.0	0.0	2.2	0.7	18.8	22.0	2600.
3	6	24	0	0.076	0.0	0.0	1.9	0.7	18.8	21.9	2620.
3	6	24	15	0.076	0.0	0.0	2.1	0.7	18.7	21.9	2620.
3	6	24	30	0.075	0.0	0.0	2.1	0.6	18.5	22.0	2620.
3	6	24	45	0.075	0.0	0.0	1.9	0.5	18.2	21.8	2620.
3	6	25	0	0.076	0.0	0.0	2.1	0.4	18.1	22.0	2620.
3	6	25	15	0.075	0.0	0.0	2.0	0.6	18.1	22.0	2620.
3	6	25	30	0.075	0.0	0.0	1.9	0.4	18.1	22.0	2630.
3	6	25	45	0.074	0.0	0.0	1.9	0.4	18.0	22.0	2620.
3	6	26	0	0.073	0.0	0.0	1.9	0.5	17.9	21.9	2620.
3	6	26	15	0.073	0.0	0.0	1.8	0.4	17.9	21.9	2620.
3	6	26	30	0.072	0.0	0.0	1.9	0.4	17.8	22.0	2610.
3	6	26	45	0.072	0.0	0.0	1.7	0.5	17.7	21.9	2600.
3	6	27	0	0.073	0.0	0.0	1.6	0.3	17.7	22.0	2620.
3	6	27	15	0.074	0.0	0.0	1.7	0.3	17.6	21.9	2620.
3	6	27	30	0.072	0.0	0.0	1.7	0.6	17.6	22.3	2630.
3	6	27	45	0.067	0.0	0.0	1.8	0.2	17.7	22.0	2600.
3	6	28	0	0.066	0.0	0.0	1.7	0.4	17.7	22.3	2610.
3	6	28	15	0.060	0.0	0.0	1.4	0.7	17.6	22.3	2630.
3	6	28	30	0.049	0.0	0.0	1.3	0.5	17.5	22.2	2620.
3	6	28	45	0.047	0.0	0.0	1.5	0.5	17.5	22.3	2630.
3	6	29	0	0.048	0.0	0.0	1.3	0.3	17.6	22.2	2630.
3	6	29	15	0.060	0.0	0.0	1.8	0.4	17.8	22.2	2610.
3	6	29	30	0.066	0.0	0.0	1.5	0.4	17.6	22.3	2610.
3	6	29	45	0.063	0.0	0.0	1.7	0.8	17.4	22.1	2610.
3	6	30	0	0.069	0.0	0.0	1.7	0.5	17.4	22.3	2630.
3	6	30	15	0.071	0.0	0.0	1.8	0.4	17.4	22.4	2620.
3	6	30	30	0.072	0.0	0.0	1.7	0.3	17.3	22.4	2600.
3	6	30	45	0.071	0.0	0.0	1.6	0.2	17.0	22.4	2610.
3	6	31	0	0.072	0.0	0.0	1.6	0.2	17.0	22.5	2630.
3	6	31	15	0.073	0.0	0.0	1.6	0.4	17.0	22.6	2610.
3	6	31	30	0.073	0.0	0.0	1.7	0.2	17.1	22.5	2620.
3	6	31	45	0.072	0.0	0.0	1.9	0.1	17.2	22.6	2610.
3	6	32	0	0.072	0.0	0.0	1.6	0.1	17.3	22.7	2640.
3	6	32	15	0.073	0.0	0.0	1.8	0.1	17.3	22.9	2640.
3	6	32	30	0.072	0.0	0.0	1.7	0.1	17.3	22.8	2640.
3	6	32	45	0.073	0.0	0.0	1.6	0.1	17.2	22.8	2620.
3	6	33	0	0.071	0.0	0.0	1.5	0.1	17.0	22.8	2620.
3	6	33	15	0.071	0.0	0.0	1.5	0.0	17.0	22.7	2620.
3	6	33	30	0.070	0.0	0.0	1.7	0.0	17.0	23.1	2620.
3	6	33	45	0.070	0.0	0.0	1.3	0.1	16.9	23.1	2640.
3	6	34	0	0.072	0.0	0.0	1.1	0.1	16.9	22.9	2620.
3	6	34	15	0.072	0.0	0.0	1.4	0.0	16.9	23.1	2650.
4	6	34	30	0.071	0.0	0.0	1.4	0.0	16.8	23.2	2610.
4	6	34	45	0.071	0.0	0.0	1.4	0.0	16.7	23.1	2610.
4	6	35	0	0.074	0.0	0.0	1.3	0.0	16.7	23.3	2620.
4	6	35	15	0.075	0.0	0.0	1.5	0.0	16.9	23.3	2640.
4	6	35	30	0.072	0.0	0.0	1.8	0.1	16.9	23.1	2640.

TULSA FLIGHT NUMBER 18 DATE: 9-11

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
4	6	35	45	0.072	0.0	0.0	1.6	0.1	16.9	23.3	2640.
4	6	36	0	0.071	0.0	0.0	1.5	0.0	16.9	23.3	2640.
4	6	36	15	0.071	0.0	0.0	1.5	0.1	17.1	23.1	2630.
5	6	36	30	0.072	0.0	0.0	1.7	0.1	17.6	22.7	2600.
5	6	36	45	0.073	0.0	0.0	******	0.2	17.7	23.0	2640.
5	6	37	0	0.072	0.0	0.0	1.7	0.2	17.5	21.9	2590.
5	6	37	15	0.071	0.0	0.0	1.8	0.1	17.1	22.3	2580.
5	6	37	30	0.072	0.0	0.0	1.5	0.1	16.9	22.4	2610.
5	6	37	45	0.071	0.0	0.0	1.4	0.1	16.8	22.6	2610.
5	6	38	0	0.069	0.0	0.0	1.4	0.1	16.7	22.7	2600.
5	6	38	15	0.070	0.0	0.0	1.3	0.1	16.7	22.9	2630.
5	6	38	30	0.071	0.0	0.0	1.4	0.0	16.7	22.8	2640.
5	6	38	45	0.070	0.0	0.0	1.4	0.1	16.9	22.8	2630.
5	6	39	0	0.069	0.0	0.0	1.4	0.2	16.9	22.9	2640.
5	6	39	15	0.069	0.0	0.0	1.5	0.1	16.8	23.1	2610.
5	6	39	30	0.070	0.0	0.0	1.5	0.2	16.9	22.8	2650.
5	6	39	45	0.071	0.0	0.0	1.3	0.0	17.0	23.1	2640.
5	6	40	0	0.072	0.0	0.0	1.5	0.1	17.0	23.0	2630.
5	6	40	15	0.071	0.0	0.0	1.4	0.0	17.1	23.1	2650.
5	6	40	30	0.071	0.0	0.0	1.6	0.1	17.1	23.0	2640.
5	6	40	45	0.071	0.0	0.0	1.6	0.0	17.0	23.2	2630.
5	6	41	0	0.071	0.0	0.0	1.5	0.1	16.9	23.3	2650.
5	6	41	15	0.071	0.0	0.0	1.6	0.1	17.0	23.0	2640.
5	6	41	30	0.065	0.0	0.0	1.5	0.1	17.1	23.0	2640.
5	6	41	45	0.070	0.0	0.0	1.5	0.4	17.1	23.1	2650.
5	6	42	0	0.070	0.0	0.0	1.7	0.2	17.2	23.1	2630.
5	6	42	15	0.070	0.0	0.0	1.6	0.3	17.4	23.0	2640.
5	6	42	30	0.071	0.0	0.0	1.4	0.2	17.5	23.2	2640.
5	6	42	45	0.071	0.0	0.0	1.3	0.3	17.5	23.1	2630.
5	6	43	0	0.060	0.0	0.0	1.1	0.3	17.6	22.8	2630.
5	6	43	15	0.055	0.0	0.0	1.5	0.1	17.8	23.1	2640.
5	6	43	30	0.059	0.0	0.0	1.1	0.1	17.7	22.9	2630.
5	6	43	45	0.057	0.0	0.0	1.4	0.1	17.5	22.9	2630.
5	6	44	0	0.058	0.0	0.0	1.6	0.2	17.5	22.8	2630.
5	6	44	15	0.069	0.0	0.0	1.6	0.0	17.5	22.9	2630.
5	6	44	30	0.071	0.0	0.0	1.6	0.0	17.4	22.9	2640.
5	6	44	45	0.072	0.0	0.0	1.5	0.1	17.4	22.7	2640.
5	6	45	0	0.062	0.0	0.0	1.6	0.1	17.6	22.7	2630.
5	6	45	15	0.061	0.0	0.0	1.5	0.2	17.7	22.7	2640.
5	6	45	30	0.060	0.0	0.0	1.5	0.1	17.8	22.6	2630.
5	6	45	45	0.063	0.0	0.0	1.5	0.2	17.9	22.3	2620.
5	6	46	0	0.060	0.0	0.0	1.5	0.1	17.9	22.0	2630.
5	6	46	15	0.061	0.0	0.0	1.7	0.1	17.9	22.3	2650.
5	6	46	30	0.065	0.0	0.0	1.8	0.2	18.1	22.4	2630.
5	6	46	45	0.070	0.0	0.0	1.8	0.2	18.1	22.3	2630.
5	6	47	0	0.073	0.0	0.0	1.8	0.3	18.4	22.3	2630.
5	6	47	15	0.074	0.0	0.0	2.1	0.3	18.7	22.3	2650.
5	6	47	30	0.073	0.0	0.0	2.0	0.3	18.9	22.1	2640.
5	6	47	45	0.073	0.0	0.0	1.9	0.3	18.8	21.9	2640.
5	6	48	0	0.074	0.0	0.0	1.9	0.4	18.6	21.9	2650.

TULSA FLIGHT NUMBER 16 DATE: 9-11

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	48	15	0.073	0.0	0.0	2.0	0.5	18.5	21.9	2640.
5	6	48	30	0.074	0.0	0.0	1.9	0.5	18.6	22.0	2640.
5	6	48	45	0.074	0.0	0.0	2.0	0.4	18.8	21.8	2660.
5	6	49	0	0.073	0.0	0.0	1.9	0.5	19.0	21.9	2650.
5	6	49	15	0.075	0.0	0.0	1.9	0.5	19.0	21.8	2660.
5	6	49	30	0.074	0.0	0.0	2.0	0.6	19.0	21.7	2620.
5	6	49	45	0.073	0.0	0.0	1.9	0.5	19.0	21.7	2630.
5	6	50	0	0.074	0.0	0.0	2.0	0.8	18.9	21.6	2620.
5	6	50	15	0.075	0.0	0.0	2.0	0.6	19.1	21.5	2650.
5	6	50	30	0.074	0.0	0.0	1.8	0.7	19.8	21.6	2660.
5	6	50	45	0.074	0.0	0.0	1.8	0.9	20.5	21.4	2650.
5	6	51	0	0.076	0.0	0.0	1.5	1.0	19.4	21.6	2660.
5	6	51	15	0.074	0.0	0.0	1.6	1.5	18.5	21.4	2660.
5	6	51	30	0.076	0.0	0.0	1.5	1.5	18.1	21.3	2650.
6	6	51	45	0.075	0.0	0.0	1.7	1.5	18.2	21.1	2650.
6	6	52	0	******	0.0	0.0	1.6	1.9	18.2	21.0	2660.
6	6	52	15	0.076	0.0	0.0	1.6	1.9	18.0	20.9	2620.
6	6	52	30	0.078	0.0	0.0	1.5	1.9	18.0	20.8	2610.
6	6	52	45	0.077	0.0	0.0	1.7	1.9	17.9	20.9	2620.
6	6	53	0	0.078	0.0	0.0	1.5	2.0	17.8	21.0	2640.
6	6	53	15	0.077	0.0	0.0	1.6	2.0	17.7	20.7	2600.
6	6	53	30	0.078	0.0	0.0	1.8	1.9	17.8	20.9	2620.
6	6	53	45	0.078	0.0	0.0	1.9	1.9	17.9	20.9	2590.
6	6	54	0	0.077	0.0	0.0	1.7	1.8	18.1	21.0	2620.
6	6	54	15	0.078	0.0	0.0	1.7	1.8	18.3	20.8	2620.
6	6	54	30	0.078	0.0	0.0	1.6	1.9	18.3	20.7	2610.
7	6	54	45	0.077	0.0	0.0	1.7	1.7	18.3	20.8	2650.
7	6	55	0	0.078	0.0	0.0	1.8	1.6	18.2	20.8	2650.
7	6	55	15	0.078	0.0	0.0	1.8	1.7	18.0	20.7	2650.
7	6	55	30	0.077	0.0	0.0	1.6	1.8	18.0	20.8	2630.
7	6	55	45	0.078	0.0	0.0	1.6	1.8	18.0	20.7	2610.
7	6	56	0	0.078	0.0	0.0	1.7	1.8	18.0	20.7	2630.
7	6	56	15	0.077	0.0	0.0	1.7	1.7	17.9	20.7	2610.
7	6	56	30	0.076	0.0	0.0	1.7	1.6	17.9	20.5	2610.
7	6	56	45	0.076	0.0	0.0	1.7	1.7	18.1	20.8	2620.
7	6	57	0	0.076	0.0	0.0	1.9	1.5	18.2	20.5	2640.
7	6	57	15	0.076	0.0	0.0	1.9	1.5	18.2	20.9	2620.
7	6	57	30	0.075	0.0	0.0	1.9	1.3	18.3	20.8	2620.
7	6	57	45	0.075	0.0	0.0	1.8	1.4	18.4	20.7	2630.
7	6	58	0	0.075	0.0	0.0	1.8	1.6	18.5	20.8	2630.
7	6	58	15	0.074	0.0	0.0	2.2	1.4	18.7	20.7	2640.
7	6	58	30	0.075	0.0	0.0	2.1	1.3	18.8	20.8	2650.
7	6	58	45	0.076	0.0	0.0	2.2	1.1	18.9	21.1	2650.
7	6	59	0	0.074	0.0	0.0	2.0	0.9	19.0	20.7	2600.
7	6	59	15	0.074	0.0	0.0	1.8	1.0	19.1	20.9	2620.
7	6	59	30	0.073	0.0	0.0	2.0	1.1	19.0	20.7	2630.
7	6	59	45	0.075	0.0	0.0	2.2	1.0	19.0	20.8	2640.
7	7	0	0	0.075	0.0	0.0	2.4	0.8	19.0	21.1	2640.
7	7	0	15	0.074	0.0	0.0	2.3	0.9	19.0	21.0	2650.
7	7	0	30	0.073	0.0	0.0	2.0	0.8	19.0	21.0	2640.

TULSA FLIGHT NUMBER 16 DATE: 9-11

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	7	0	45	0.073	0.0	0.0	2.1	0.7	18.9	21.0	2640.
1	7	1	0	0.073	0.0	0.0	2.2	0.7	18.9	21.2	2600.
1	7	1	15	0.072	0.0	0.0	2.1	0.8	18.9	21.0	2640.
1	7	1	30	0.072	0.0	0.0	2.2	0.8	18.9	20.7	2620.
1	7	1	45	0.071	0.0	0.0	2.2	0.9	18.8	20.9	2620.
1	7	2	0	0.072	0.0	0.0	2.1	0.7	18.8	21.0	2620.
1	7	2	15	0.070	0.0	0.0	2.3	1.0	18.9	21.0	2640.
1	7	2	30	0.070	0.0	0.0	1.9	1.4	18.8	20.8	2610.
1	7	2	45	0.071	0.0	0.0	1.8	1.1	18.8	21.1	2640.
1	7	3	0	0.071	0.0	0.0	2.0	0.7	18.8	21.1	2600.
1	7	3	15	0.072	0.0	0.0	2.1	0.7	18.8	21.2	2640.
1	7	3	30	0.071	0.0	0.0	2.0	0.7	18.9	20.9	2630.
1	7	3	45	0.071	0.0	0.0	2.3	0.6	18.9	21.0	2620.
1	7	4	0	0.072	0.0	0.0	2.1	0.6	18.7	21.0	2610.
1	7	4	15	0.069	0.0	0.0	2.0	0.5	18.6	20.9	2630.
1	7	4	30	0.069	0.0	0.0	2.0	0.5	18.4	21.1	2640.
1	7	4	45	0.069	0.0	0.0	1.7	0.3	18.3	21.1	2640.
1	7	5	0	0.066	0.0	0.0	1.9	0.4	18.2	21.0	2640.
S 2	7	9	15	0.066	0.0	0.0	1.9	0.2	17.6	20.9	2500.
S 2	7	9	30	0.065	0.0	0.0	1.5	0.1	17.3	20.8	2600.
S 2	7	9	45	0.069	0.0	0.0	1.2	0.0	17.0	20.9	2650.
S 2	7	10	0	0.073	0.0	0.0	1.0	0.1	16.6	21.0	2750.
S 2	7	10	15	0.074	0.0	0.0	1.5	0.0	16.3	20.9	2850.
S 2	7	10	30	0.074	0.0	0.0	1.2	0.0	16.2	21.0	2900.
S 2	7	10	45	0.074	0.0	0.0	1.4	0.0	16.3	21.1	3000.
S 2	7	11	0	0.073	0.0	0.0	1.6	0.0	16.6	20.9	3100.
S 2	7	11	15	0.069	0.0	0.0	1.7	0.0	16.7	21.0	3200.
S 2	7	11	30	0.070	0.0	0.0	1.7	0.0	16.3	20.9	3250.
S 2	7	11	45	0.071	0.0	0.0	1.7	0.0	16.0	21.0	3350.
S 2	7	12	0	0.071	0.0	0.0	1.4	0.0	15.9	20.6	3450.
S 2	7	12	15	0.073	0.0	0.0	1.4	0.0	16.0	20.5	3550.
S 2	7	12	30	0.078	0.0	0.0	1.4	0.1	16.0	20.6	3650.
S 2	7	12	45	0.080	0.0	0.0	1.2	0.2	16.3	20.6	3750.
S 2	7	13	0	0.084	0.0	0.0	1.4	0.4	16.6	20.5	3800.
S 2	7	13	15	0.089	0.0	0.0	1.2	0.8	16.8	20.5	3900.
S 2	7	13	30	0.088	0.0	0.0	1.2	0.8	17.0	20.4	4000.
S 2	7	13	45	0.087	0.0	0.0	1.2	0.9	16.9	20.2	4100.
S 2	7	14	0	0.081	0.0	0.0	1.1	1.1	16.8	19.8	4200.
S 2	7	14	15	0.077	0.0	0.0	1.1	1.1	16.8	19.8	4250.
S 2	7	14	30	0.076	0.0	0.0	1.1	1.0	16.8	19.8	4350.
S 2	7	14	45	0.076	0.0	0.0	1.1	0.9	16.6	19.5	4450.
S 2	7	15	0	0.075	0.0	0.0	0.9	0.7	16.0	19.3	4550.
S 2	7	15	15	0.073	0.0	0.0	0.6	0.4	15.7	19.3	4650.
S 2	7	15	30	0.072	0.0	0.0	0.7	0.2	16.2	18.9	4750.
S 2	7	15	45	0.071	0.0	0.0	0.7	0.2	16.8	18.8	4800.
S 2	7	16	0	0.069	0.0	0.0	0.8	0.2	17.2	19.0	4900.
S 2	7	16	15	0.068	0.0	0.0	1.0	0.2	17.0	18.5	5000.
S 2	7	16	30	0.069	0.0	0.0	0.8	0.1	16.7	18.3	5100.
S 2	7	16	45	0.078	0.0	0.0	0.7	0.4	16.3	18.3	5200.
S 2	7	17	0	0.083	0.0	0.0	0.8	0.4	16.5	18.1	5250.

TULSA FLIGHT NUMBER 16 DATE: 9-11

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	17	15	0.084	0.0	0.0	0.8	0.5	16.3	18.2	5350.
S 2	7	17	30	0.084	0.0	0.0	1.0	0.5	16.2	17.9	5450.
S 2	7	17	45	0.083	0.0	0.0	0.7	0.4	16.0	17.8	5550.
S 2	7	18	0	0.080	0.0	0.0	0.6	0.3	15.9	17.7	5650.
S 2	7	18	15	0.076	0.0	0.0	0.8	0.3	15.9	17.5	5750.
S 2	7	18	30	0.076	0.0	0.0	0.9	0.3	16.0	17.4	5800.
S 2	7	18	45	0.076	0.0	0.0	0.9	0.2	16.1	17.4	5900.
S 2	7	19	0	0.075	0.0	0.0	0.7	0.1	15.9	17.2	6000.
S 2	7	19	15	0.072	0.0	0.0	0.6	0.0	15.5	17.5	6100.
S 2	7	19	30	0.066	0.0	0.0	0.7	0.0	15.1	16.9	6200.
S 2	7	19	45	0.065	0.0	0.0	0.6	0.0	15.1	16.8	6250.
S 2	7	20	0	0.064	0.0	0.0	0.8	0.0	15.1	16.5	6350.
S 2	7	20	15	0.063	0.0	0.0	0.6	0.0	15.1	16.6	6450.
S 2	7	20	30	0.062	0.0	0.0	0.9	0.0	15.1	16.4	6550.
S 2	7	20	45	0.065	0.0	0.0	0.8	0.0	15.0	16.3	6650.
S 2	7	21	0	0.065	0.0	0.0	0.8	0.0	14.8	16.2	6750.
S 2	7	21	15	0.064	0.0	0.0	0.8	0.0	14.5	16.0	6800.
S 2	7	21	30	0.062	0.0	0.0	0.8	0.0	14.1	15.8	6900.
S 2	7	21	45	0.062	0.0	0.0	0.6	0.0	13.5	15.5	7000.
S 2	7	22	0	0.062	0.0	0.0	0.8	0.0	12.8	15.3	7100.
S 2	7	22	15	0.064	0.0	0.0	0.7	0.0	12.5	15.4	7200.
S 2	7	22	30	0.065	0.0	0.0	0.8	0.0	12.4	15.1	7250.
S 2	7	22	45	0.066	0.0	0.0	0.8	0.0	12.6	15.1	7350.
S 2	7	23	0	0.065	0.0	0.0	0.7	0.0	12.5	14.9	7450.
S 2	7	23	15	0.066	0.0	0.0	0.8	0.0	12.2	14.6	7550.
S 2	7	23	30	0.064	0.0	0.0	0.8	0.0	11.9	14.6	7650.
S 2	7	23	45	0.064	0.0	0.0	0.8	0.0	12.0	14.4	7750.
S 2	7	24	0	0.063	0.0	0.0	0.6	0.0	12.0	14.2	7850.
S 2	7	24	15	0.065	0.0	0.0	0.7	0.0	11.8	14.1	7900.
S 2	7	24	30	0.064	0.0	0.0	0.7	0.0	11.4	13.6	8000.
S 2	7	24	45	0.062	0.0	0.0	0.6	0.0	11.3	13.6	8100.
S 2	7	25	0	0.063	0.0	0.0	0.7	0.0	11.6	13.3	8200.
S 2	7	25	15	0.065	0.0	0.0	0.8	0.0	11.7	13.1	8250.
S 2	7	25	30	0.066	0.0	0.0	0.7	0.0	11.8	12.9	8350.
S 2	7	25	45	0.066	0.0	0.0	1.4	0.0	11.8	12.9	8450.
S 2	7	26	0	0.065	0.0	0.0	1.0	0.0	11.6	12.3	8550.
S 2	7	26	15	0.064	0.0	0.0	1.3	0.0	11.6	12.3	8650.
S 2	7	26	30	0.064	0.0	0.0	2.1	0.0	11.7	12.3	8750.
S 2	7	26	45	0.065	0.0	0.0	2.2	0.0	11.6	11.6	8800.
S 2	7	27	0	0.067	0.0	0.0	2.2	0.0	11.3	11.3	8900.
S 2	7	27	15	0.067	0.0	0.0	0.8	0.0	11.5	11.3	9000.
S 2	7	27	30	0.069	0.0	0.0	1.0	0.0	10.8	10.8	9100.
S 2	7	27	45	0.071	0.0	0.0	0.8	0.0	10.3	10.8	9200.
S 2	7	28	0	0.071	0.0	0.0	0.9	0.0	9.8	10.8	9250.
S 2	7	28	15	0.069	0.0	0.0	1.1	0.0	9.6	10.4	9350.
S 2	7	28	30	0.071	0.0	0.0	1.0	0.0	9.5	10.6	9450.
S 2	7	28	45	0.071	0.0	0.0	0.8	0.0	9.5	10.2	9550.
S 2	7	29	0	0.071	0.0	0.0	1.9	0.0	9.4	9.9	9650.
S 2	7	29	15	0.070	0.0	0.0	0.9	0.0	9.0	9.7	9750.
S 2	7	29	30	0.070	0.0	0.0	0.9	0.0	8.3	9.5	9800.

TULSA FLIGHT NUMBER 16 DATE: 9-11

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	: 29 :	45	0.068	0.0	0.0	0.9	0.0	8.0	9.4	9900.
S 2	7	: 30 :	0	0.067	0.0	0.0	0.9	0.0	7.9	8.9	10000.

TULSA FLIGHT NUMBER 17 DATE: 9-16-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	26	0	0.057	0.0	0.0	1.0	16.7	******	20.0	1500.
S 1	5	26	15	0.057	0.0	0.0	1.1	25.1	******	20.0	1600.
S 1	5	26	30	0.058	0.0	0.0	1.1	9.0	******	20.0	1700.
S 1	5	26	45	0.059	0.0	0.0	1.2	11.9	******	19.8	1800.
S 1	5	27	0	0.060	0.0	0.0	1.1	15.0	******	19.9	1900.
S 1	5	27	15	0.062	0.0	0.0	1.3	8.7	******	19.8	2000.
S 1	5	27	30	0.063	0.0	0.0	1.2	8.5	******	19.7	2100.
S 1	5	27	45	0.063	0.0	0.0	1.1	6.9	******	19.6	2200.
S 1	5	28	0	0.064	0.0	0.0	1.1	15.8	******	19.6	2300.
S 1	5	28	15	0.065	0.0	0.0	1.1	6.0	******	19.5	2400.
S 1	5	28	30	0.065	0.0	0.0	1.1	3.5	******	19.4	2500.
S 1	5	28	45	0.067	0.0	0.0	1.1	0.7	******	19.3	2600.
S 1	5	29	0	0.069	0.0	0.0	1.2	1.9	******	19.2	2700.
S 1	5	29	15	0.070	0.0	0.0	1.1	0.3	******	19.1	2750.
S 1	5	29	30	0.068	0.0	0.0	1.0	0.2	******	19.0	2800.
S 1	5	29	45	0.070	0.0	0.0	1.1	0.1	******	18.9	2850.
S 1	5	30	0	0.070	0.0	0.0	1.1	0.2	******	18.8	2900.
S 1	5	30	15	0.072	0.0	0.0	1.2	0.2	******	18.7	2950.
S 1	5	30	30	0.072	0.0	0.0	0.9	0.2	******	18.7	3000.
S 1	5	30	45	0.072	0.0	0.0	1.0	0.2	******	18.6	3050.
S 1	5	31	0	0.062	0.0	0.0	1.0	0.2	******	18.6	3150.
S 1	5	31	15	0.099	0.0	0.0	1.1	0.2	******	18.4	3250.
S 1	5	31	30	0.106	0.0	0.0	0.7	1.0	******	18.5	3350.
S 1	5	31	45	0.105	0.0	0.0	0.8	2.3	******	18.5	3450.
S 1	5	32	0	0.091	0.0	0.0	0.8	2.3	******	18.5	3500.
S 1	5	32	15	0.082	0.0	0.0	0.7	1.7	******	18.5	3600.
S 1	5	32	30	0.076	0.0	0.0	0.7	1.4	******	18.4	3700.
S 1	5	32	45	0.070	0.0	0.0	0.8	0.7	******	18.4	3800.
S 1	5	33	0	0.068	0.0	0.0	0.7	0.4	******	18.4	3850.
S 1	5	33	15	0.067	0.0	0.0	0.7	0.2	******	18.3	3950.
S 1	5	33	30	0.067	0.0	0.0	0.6	0.2	******	18.3	4000.
S 1	5	33	45	0.067	0.0	0.0	0.8	0.3	******	18.2	4100.
S 1	5	34	0	0.067	0.0	0.0	0.7	0.2	******	18.2	4200.
S 1	5	34	15	0.068	0.0	0.0	0.7	0.3	******	18.1	4300.
S 1	5	34	30	0.069	0.0	0.0	0.7	0.2	******	18.0	4400.
S 1	5	34	45	0.070	0.0	0.0	0.7	0.3	******	18.0	4500.
S 1	5	35	0	0.069	0.0	0.0	0.7	0.4	******	17.9	4600.
S 1	5	35	15	0.069	0.0	0.0	0.6	0.5	******	17.8	4700.
S 1	5	35	30	0.069	0.0	0.0	0.8	0.8	******	17.7	4800.
S 1	5	35	45	0.067	0.0	0.0	0.7	0.8	******	17.6	4900.
S 1	5	36	0	0.066	0.0	0.0	0.8	0.3	******	17.4	5000.
S 1	5	36	15	0.068	0.0	0.0	0.9	0.2	******	17.3	5100.
S 1	5	36	30	0.067	0.0	0.0	0.7	0.2	******	17.2	5150.
S 1	5	36	45	0.067	0.0	0.0	0.8	0.3	******	17.0	5250.
S 1	5	37	0	0.067	0.0	0.0	0.9	0.9	******	16.9	5350.
S 1	5	37	15	0.070	0.0	0.0	0.8	0.6	******	16.7	5400.
S 1	5	37	30	0.071	0.0	0.0	0.7	1.0	******	16.6	5500.
S 1	5	37	45	0.072	0.0	0.0	0.8	1.0	******	16.4	5600.
S 1	5	38	0	0.075	0.0	0.0	0.8	1.0	******	16.3	5700.
S 1	5	38	15	0.074	0.0	0.0	0.6	0.9	******	16.1	5750.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	5	38	30	0.074	0.0	0.0	0.9	1.3	******	16.0	5850.
S 1	5	38	45	0.076	0.0	0.0	0.9	1.1	******	15.8	5900.
S 1	5	39	0	0.074	0.0	0.0	0.8	1.0	******	15.7	6000.
S 1	5	39	15	0.072	0.0	0.0	0.8	0.7	******	15.6	6100.
S 1	5	39	30	0.073	0.0	0.0	0.6	1.0	******	15.4	6200.
S 1	5	39	45	0.075	0.0	0.0	0.8	1.2	******	15.3	6300.
S 1	5	40	0	0.073	0.0	0.0	0.9	1.1	******	15.2	6400.
S 1	5	40	15	0.075	0.0	0.0	0.9	1.2	******	15.1	6500.
S 1	5	40	30	0.078	0.0	0.0	0.8	1.0	******	14.9	6600.
S 1	5	40	45	0.078	0.0	0.0	0.8	0.9	******	14.8	6700.
S 1	5	41	0	0.070	0.0	0.0	0.7	0.6	******	14.7	6800.
S 1	5	41	15	0.067	0.0	0.0	0.8	0.4	******	14.6	6900.
S 1	5	41	30	0.064	0.0	0.0	0.8	0.3	******	14.5	7000.
S 1	5	41	45	0.065	0.0	0.0	0.7	0.2	******	14.4	7100.
S 1	5	42	0	0.065	0.0	0.0	0.8	0.3	******	14.3	7200.
S 1	5	42	15	0.065	0.0	0.0	0.8	0.3	******	14.2	7250.
S 1	5	42	30	0.065	0.0	0.0	0.8	0.3	******	14.1	7350.
S 1	5	42	45	0.065	0.0	0.0	0.8	0.3	******	13.9	7450.
S 1	5	43	0	0.064	0.0	0.0	0.7	0.3	******	13.9	7500.
S 1	5	43	15	0.064	0.0	0.0	0.8	0.3	******	13.7	7600.
S 1	5	43	30	0.063	0.0	0.0	0.7	0.3	******	13.9	7650.
S 1	5	43	45	0.063	0.0	0.0	0.8	0.3	******	13.5	7700.
S 1	5	44	0	0.062	0.0	0.0	0.7	0.3	******	13.3	7800.
S 1	5	44	15	0.061	0.0	0.0	0.8	0.3	******	13.2	7850.
S 1	5	44	30	0.061	0.0	0.0	0.8	0.3	******	13.3	7950.
S 1	5	44	45	0.061	0.0	0.0	0.7	0.3	******	12.9	8000.
S 1	5	45	0	0.061	0.0	0.0	0.8	0.4	******	12.8	8050.
S 1	5	45	15	0.061	0.0	0.0	0.8	0.4	******	12.6	8150.
S 1	5	45	30	0.060	0.0	0.0	0.5	0.4	******	12.5	8200.
S 1	5	45	45	0.060	0.0	0.0	0.5	0.5	******	12.3	8300.
S 1	5	46	0	0.060	0.0	0.0	0.6	0.4	******	12.1	8350.
S 1	5	46	15	0.061	0.0	0.0	0.7	0.5	******	12.0	8450.
S 1	5	46	30	0.061	0.0	0.0	0.7	0.5	******	11.8	8500.
S 1	5	46	45	0.060	0.0	0.0	0.6	0.5	******	11.6	8550.
S 1	5	47	0	0.060	0.0	0.0	0.6	0.4	******	11.4	8650.
S 1	5	47	15	0.060	0.0	0.0	0.7	0.5	******	11.2	8750.
S 1	5	47	30	0.060	0.0	0.0	0.6	0.4	******	11.1	8800.
S 1	5	47	45	0.060	0.0	0.0	0.8	0.5	******	11.0	8900.
S 1	5	48	0	0.061	0.0	0.0	0.8	0.5	******	10.7	9000.
S 1	5	48	15	0.060	0.0	0.0	0.7	0.6	******	10.4	9100.
S 1	5	48	30	0.060	0.0	0.0	0.6	0.6	******	10.2	9200.
S 1	5	48	45	0.059	0.0	0.0	0.7	0.5	******	10.1	9300.
S 1	5	49	0	0.059	0.0	0.0	0.7	0.5	******	10.0	9350.
S 1	5	49	15	0.059	0.0	0.0	0.7	0.5	******	9.7	9450.
S 1	5	49	30	0.058	0.0	0.0	0.6	0.6	******	9.6	9550.
S 1	5	49	45	0.057	0.0	0.0	0.5	0.6	******	9.3	9650.
S 1	5	50	0	0.058	0.0	0.0	0.6	0.7	******	9.1	9700.
S 1	5	50	15	0.056	0.0	0.0	0.6	0.6	******	9.0	9800.
S 1	5	50	30	0.056	0.0	0.0	0.7	0.6	******	8.8	9900.
S 1	5	50	45	0.057	0.0	0.0	0.7	0.6	******	8.7	10000.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	CO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6	0	15	0.075	0.0	0.0	1.1	4.8	******	19.1	2500.
1	6	0	30	0.071	0.0	0.0	1.0	4.6	******	19.3	2500.
1	6	0	45	0.071	0.0	0.0	0.8	4.5	******	19.3	2500.
1	6	1	0	0.067	0.0	0.0	1.0	4.5	******	19.6	2500.
1	6	1	15	0.066	0.0	0.0	0.9	4.4	******	19.6	2500.
1	6	1	30	0.065	0.0	0.0	1.1	4.3	******	19.6	2500.
1	6	1	45	0.064	0.0	0.0	0.9	4.3	******	19.8	2500.
1	6	2	0	0.064	0.0	0.0	1.2	4.1	******	19.8	2500.
1	6	2	15	0.065	0.0	0.0	1.1	4.1	******	19.9	2500.
1	6	2	30	0.066	0.0	0.0	1.1	4.0	******	19.9	2500.
1	6	2	45	0.069	0.0	0.0	1.1	4.0	******	20.0	2500.
1	6	3	0	0.068	0.0	0.0	0.9	3.9	******	20.0	2500.
1	6	3	15	0.068	0.0	0.0	0.9	3.8	******	20.0	2500.
1	6	3	30	0.068	0.0	0.0	1.1	3.6	******	20.0	2500.
1	6	3	45	0.067	0.0	0.0	1.0	3.7	******	20.0	2500.
1	6	4	0	0.066	0.0	0.0	0.9	3.7	******	20.0	2500.
1	6	4	15	0.070	0.0	0.0	1.0	3.7	******	20.0	2500.
1	6	4	30	0.068	0.0	0.0	1.0	3.5	******	20.0	2500.
1	6	4	45	0.069	0.0	0.0	1.0	3.5	******	20.1	2500.
1	6	5	0	0.068	0.0	0.0	1.0	3.5	******	20.0	2500.
1	6	5	15	0.067	0.0	0.0	1.1	3.4	******	20.0	2500.
1	6	5	30	0.066	0.0	0.0	1.1	3.5	******	20.0	2500.
1	6	5	45	0.067	0.0	0.0	1.0	3.4	******	20.0	2500.
1	6	6	0	0.066	0.0	0.0	1.0	3.4	******	20.0	2500.
1	6	6	15	0.065	0.0	0.0	1.0	3.3	******	19.9	2500.
1	6	6	30	0.066	0.0	0.0	1.0	3.4	******	19.9	2500.
1	6	6	45	0.066	0.0	0.0	1.0	3.5	******	19.9	2500.
1	6	7	0	0.067	0.0	0.0	1.1	3.5	******	20.0	2500.
1	6	7	15	0.066	0.0	0.0	1.0	3.4	******	19.9	2500.
1	6	7	30	0.067	0.0	0.0	0.9	3.4	******	19.9	2500.
1	6	7	45	0.066	0.0	0.0	1.2	3.2	******	19.9	2500.
1	6	8	0	0.067	0.0	0.0	1.0	3.3	******	19.9	2500.
1	6	8	15	0.066	0.0	0.0	1.1	3.4	******	19.9	2500.
1	6	8	30	0.067	0.0	0.0	1.0	3.4	******	19.9	2500.
1	6	8	45	0.067	0.0	0.0	0.9	3.2	******	19.9	2500.
1	6	9	0	0.067	0.0	0.0	1.0	3.1	******	19.9	2500.
1	6	9	15	0.065	0.0	0.0	1.0	3.0	******	19.8	2500.
1	6	9	30	0.065	0.0	0.0	0.9	3.0	******	19.8	2500.
1	6	9	45	0.066	0.0	0.0	1.0	3.0	******	19.9	2500.
1	6	10	0	0.067	0.0	0.0	1.0	3.0	******	19.8	2500.
1	6	10	15	0.067	0.0	0.0	1.0	2.8	******	19.8	2500.
1	6	10	30	0.065	0.0	0.0	1.0	2.9	******	19.8	2500.
1	6	10	45	0.067	0.0	0.0	1.1	2.8	******	19.7	2500.
1	6	11	0	0.066	0.0	0.0	1.0	2.9	******	19.7	2500.
1	6	11	15	0.065	0.0	0.0	0.9	2.8	******	19.7	2500.
1	6	11	30	0.066	0.0	0.0	1.0	2.8	******	19.6	2500.
1	6	11	45	0.067	0.0	0.0	1.2	2.8	******	19.7	2500.
1	6	12	0	0.067	0.0	0.0	0.9	2.7	******	19.6	2500.
1	6	12	15	0.067	0.0	0.0	1.1	2.7	******	19.6	2500.
1	6	12	30	0.066	0.0	0.0	1.0	2.7	******	19.6	2500.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	CO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6	12	45	0.066	0.0	0.0	1.1	2.8	******	19.7	2500.
1	6	13	0	0.067	0.0	0.0	1.1	2.8	******	19.7	2500.
1	6	13	15	0.067	0.0	0.0	1.2	3.0	******	19.5	2500.
1	6	13	30	0.066	0.0	0.0	1.0	2.9	******	19.7	2500.
1	6	13	45	0.066	0.0	0.0	1.1	3.0	******	19.6	2500.
1	6	14	0	0.066	0.0	0.0	0.9	3.0	******	19.6	2500.
1	6	14	15	0.066	0.0	0.0	1.0	3.2	******	19.6	2500.
1	6	14	30	0.066	0.0	0.0	1.1	3.3	******	19.7	2500.
1	6	14	45	0.069	0.0	0.0	1.0	3.2	******	19.7	2500.
1	6	15	0	0.068	0.0	0.0	1.0	3.2	******	19.7	2500.
2	6	15	15	0.068	0.0	0.0	1.1	3.2	******	19.6	2500.
2	6	15	30	0.069	0.0	0.0	1.1	3.2	******	20.1	2500.
2	6	15	45	0.069	0.0	0.0	0.9	3.0	******	19.8	2500.
2	6	16	0	0.070	0.0	0.0	1.2	3.0	******	19.9	2500.
2	6	16	15	0.069	0.0	0.0	1.0	2.8	******	19.9	2500.
2	6	16	30	0.068	0.0	0.0	0.9	2.9	******	20.0	2500.
2	6	16	45	0.068	0.0	0.0	0.9	2.7	******	19.9	2500.
2	6	17	0	0.068	0.0	0.0	1.0	2.6	******	20.0	2500.
2	6	17	15	0.067	0.0	0.0	1.2	2.6	******	20.0	2500.
2	6	17	30	0.068	0.0	0.0	1.0	2.6	******	19.9	2500.
2	6	17	45	0.068	0.0	0.0	1.2	2.5	******	19.9	2500.
2	6	18	0	0.067	0.0	0.0	1.1	2.4	******	19.9	2500.
3	6	18	15	0.067	0.0	0.0	1.0	2.4	******	19.9	2500.
3	6	18	30	0.067	0.0	0.0	1.1	2.5	******	19.9	2500.
3	6	18	45	0.068	0.0	0.0	1.0	2.5	******	19.8	2500.
3	6	19	0	0.068	0.0	0.0	1.2	2.4	******	19.9	2500.
3	6	19	15	0.069	0.0	0.0	1.1	2.4	******	19.8	2500.
3	6	19	30	0.068	0.0	0.0	1.1	2.4	******	19.8	2500.
3	6	19	45	0.069	0.0	0.0	1.3	2.4	******	19.8	2500.
3	6	20	0	0.068	0.0	0.0	0.9	2.5	******	19.9	2500.
3	6	20	15	0.069	0.0	0.0	0.9	2.5	******	19.8	2500.
3	6	20	30	0.070	0.0	0.0	1.1	2.5	******	19.7	2500.
3	6	20	45	0.069	0.0	0.0	1.1	2.6	******	19.9	2500.
3	6	21	0	0.068	0.0	0.0	1.1	2.5	******	19.9	2500.
3	6	21	15	0.069	0.0	0.0	1.2	2.6	******	19.8	2500.
3	6	21	30	0.069	0.0	0.0	1.0	2.7	******	19.9	2500.
3	6	21	45	0.069	0.0	0.0	1.2	2.7	******	19.8	2500.
3	6	22	0	0.068	0.0	0.0	1.2	2.6	******	19.8	2500.
3	6	22	15	0.068	0.0	0.0	1.2	2.6	******	19.8	2500.
3	6	22	30	0.069	0.0	0.0	1.0	2.8	******	19.9	2500.
3	6	22	45	0.068	0.0	0.0	0.9	2.7	******	19.9	2500.
3	6	23	0	0.067	0.0	0.0	1.1	2.7	******	20.0	2500.
3	6	23	15	0.067	0.0	0.0	0.9	2.6	******	19.9	2500.
3	6	23	30	0.067	0.0	0.0	1.1	2.6	16.6	19.9	2500.
3	6	23	45	0.067	0.0	0.0	1.1	2.6	16.6	19.9	2500.
3	6	24	0	0.067	0.0	0.0	1.2	2.7	16.5	20.0	2500.
3	6	24	15	0.068	0.0	0.0	1.2	2.9	16.4	19.9	2500.
3	6	24	30	0.068	0.0	0.0	0.9	2.9	16.2	19.9	2500.
3	6	24	45	0.066	0.0	0.0	1.2	2.8	16.1	20.0	2500.
3	6	25	0	0.066	0.0	0.0	1.1	2.7	16.0	20.0	2500.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	6	25	15	0.068	0.0	0.0	1.3	2.8	16.0	20.0	2500.
3	6	25	30	0.067	0.0	0.0	1.3	3.1	16.1	20.1	2500.
3	6	25	45	0.068	0.0	0.0	1.3	3.1	16.2	20.1	2500.
3	6	26	0	0.068	0.0	0.0	1.0	3.2	16.4	20.0	2500.
3	6	26	15	0.067	0.0	0.0	1.0	3.0	16.6	20.1	2500.
3	6	26	30	0.068	0.0	0.0	1.0	3.1	16.5	20.1	2500.
3	6	26	45	0.070	0.0	0.0	1.0	3.1	16.2	20.1	2500.
3	6	27	0	0.072	0.0	0.0	1.1	3.1	16.1	20.1	2500.
3	6	27	15	0.074	0.0	0.0	1.0	3.2	16.0	20.0	2500.
3	6	27	30	0.074	0.0	0.0	1.1	3.2	15.9	20.1	2500.
3	6	27	45	0.073	0.0	0.0	1.0	3.1	15.9	20.1	2500.
3	6	28	0	0.072	0.0	0.0	0.9	3.2	15.9	20.1	2500.
3	6	28	15	0.073	0.0	0.0	1.1	3.3	15.9	20.1	2500.
3	6	28	30	0.073	0.0	0.0	1.0	3.3	16.0	20.2	2500.
3	6	28	45	0.069	0.0	0.0	1.0	3.3	15.9	20.0	2500.
3	6	29	0	0.068	0.0	0.0	1.0	3.1	16.0	20.1	2500.
3	6	29	15	0.071	0.0	0.0	1.1	3.3	16.1	20.0	2500.
3	6	29	30	0.070	0.0	0.0	0.9	3.4	16.3	20.2	2500.
3	6	29	45	0.071	0.0	0.0	0.9	3.3	16.5	20.2	2500.
3	6	30	0	0.068	0.0	0.0	1.0	3.4	16.6	20.2	2500.
3	6	30	15	0.066	0.0	0.0	1.0	3.4	16.6	20.1	2500.
3	6	30	30	0.069	0.0	0.0	1.1	3.5	16.4	20.2	2500.
3	6	30	45	0.071	0.0	0.0	1.1	3.5	16.4	20.1	2500.
3	6	31	0	0.070	0.0	0.0	1.0	3.7	16.5	20.1	2500.
3	6	31	15	0.068	0.0	0.0	1.2	3.6	16.5	20.1	2500.
3	6	31	30	0.066	0.0	0.0	1.0	3.6	16.4	20.1	2500.
3	6	31	45	0.065	0.0	0.0	0.9	3.6	16.5	20.1	2500.
3	6	32	0	0.066	0.0	0.0	0.9	3.7	16.6	20.2	2500.
3	6	32	15	0.065	0.0	0.0	1.0	3.9	16.6	20.3	2500.
3	6	32	30	0.067	0.0	0.0	1.0	3.8	16.6	20.1	2500.
3	6	32	45	0.068	0.0	0.0	1.0	3.7	16.8	20.0	2500.
3	6	33	0	0.068	0.0	0.0	1.1	3.8	17.0	20.1	2500.
3	6	33	15	0.068	0.0	0.0	1.0	3.8	17.1	20.1	2500.
3	6	33	30	0.068	0.0	0.0	1.0	3.8	17.0	20.3	2500.
3	6	33	45	0.071	0.0	0.0	1.0	4.0	16.8	20.2	2500.
3	6	34	0	0.073	0.0	0.0	1.2	4.0	16.6	20.2	2500.
4	6	34	15	0.075	0.0	0.0	1.1	4.1	16.6	20.2	2500.
4	6	34	30	0.078	0.0	0.0	1.0	4.3	16.6	20.1	2500.
4	6	34	45	0.082	0.0	0.0	1.0	4.4	16.6	20.2	2500.
4	6	35	0	0.084	0.0	0.0	0.9	4.7	16.4	20.2	2500.
4	6	35	15	0.084	0.0	0.0	1.0	4.8	16.2	20.2	2500.
4	6	35	30	0.079	0.0	0.0	0.9	4.3	15.9	20.3	2500.
4	6	35	45	0.078	0.0	0.0	1.0	4.1	15.6	20.3	2500.
4	6	36	0	0.076	0.0	0.0	0.9	4.2	15.5	20.4	2500.
4	6	36	15	0.075	0.0	0.0	0.9	3.9	15.6	21.0	2500.
5	6	36	30	0.078	0.0	0.0	1.0	3.9	15.6	20.5	2500.
5	6	36	45	0.079	0.0	0.0	1.0	4.1	15.6	20.5	2500.
5	6	37	0	0.078	0.0	0.0	0.8	3.9	15.6	20.6	2500.
5	6	37	15	0.075	0.0	0.0	1.0	3.7	15.6	20.6	2500.
5	6	37	30	0.074	0.0	0.0	0.8	3.7	15.5	20.8	2500.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	37	45	0.073	0.0	0.0	0.9	3.8	15.4	20.8	2500.
5	6	38	0	0.074	0.0	0.0	0.8	3.7	15.5	20.8	2500.
5	6	38	15	0.077	0.0	0.0	0.9	3.6	15.8	20.8	2500.
5	6	38	30	0.082	0.0	0.0	0.9	4.1	15.9	20.8	2500.
5	6	38	45	0.082	0.0	0.0	0.8	4.2	16.0	20.8	2500.
5	6	39	0	0.083	0.0	0.0	1.1	4.3	16.2	20.8	2500.
5	6	39	15	0.083	0.0	0.0	0.8	4.5	16.3	20.8	2500.
5	6	39	30	0.081	0.0	0.0	0.9	4.4	16.4	20.8	2500.
5	6	39	45	0.078	0.0	0.0	1.0	4.3	16.7	20.8	2500.
5	6	40	0	0.071	0.0	0.0	0.8	4.0	16.9	20.6	2500.
5	6	40	15	0.067	0.0	0.0	1.0	3.7	16.9	20.5	2500.
5	6	40	30	0.065	0.0	0.0	0.9	3.7	16.7	20.6	2500.
5	6	40	45	0.064	0.0	0.0	0.9	3.6	16.3	20.6	2500.
5	6	41	0	0.065	0.0	0.0	0.8	3.5	16.1	20.5	2500.
5	6	41	15	0.064	0.0	0.0	0.9	3.5	16.2	20.4	2500.
5	6	41	30	0.065	0.0	0.0	1.1	3.6	16.4	20.3	2500.
5	6	41	45	0.063	0.0	0.0	1.0	3.5	16.4	20.3	2500.
5	6	42	0	0.062	0.0	0.0	0.9	3.6	16.3	20.2	2500.
5	6	42	15	0.062	0.0	0.0	1.0	3.5	16.5	20.2	2500.
5	6	42	30	0.063	0.0	0.0	1.1	3.4	16.7	20.1	2500.
5	6	42	45	0.064	0.0	0.0	0.9	3.3	16.6	20.2	2500.
5	6	43	0	0.064	0.0	0.0	1.0	3.2	16.3	20.1	2500.
5	6	43	15	0.064	0.0	0.0	1.0	3.1	16.1	20.0	2500.
5	6	43	30	0.066	0.0	0.0	1.0	3.0	16.0	19.9	2500.
5	6	43	45	0.067	0.0	0.0	1.0	3.0	15.9	19.9	2500.
5	6	44	0	0.065	0.0	0.0	0.9	2.9	16.0	20.0	2500.
5	6	44	15	0.064	0.0	0.0	1.0	2.9	16.3	20.0	2500.
5	6	44	30	0.065	0.0	0.0	1.0	2.9	16.6	19.9	2500.
5	6	44	45	0.065	0.0	0.0	0.9	2.8	16.6	19.9	2500.
5	6	45	0	0.067	0.0	0.0	1.0	2.9	16.4	20.0	2500.
5	6	45	15	0.067	0.0	0.0	0.9	2.8	16.2	20.0	2500.
5	6	45	30	0.067	0.0	0.0	0.9	2.9	16.0	19.9	2500.
5	6	45	45	0.067	0.0	0.0	0.9	3.1	16.0	20.0	2500.
5	6	46	0	0.067	0.0	0.0	0.9	3.0	16.0	19.8	2500.
5	6	46	15	0.067	0.0	0.0	0.9	2.9	16.1	20.0	2500.
5	6	46	30	0.067	0.0	0.0	0.8	2.7	16.3	19.9	2500.
5	6	46	45	0.068	0.0	0.0	0.9	2.8	16.2	20.0	2500.
5	6	47	0	0.068	0.0	0.0	0.9	2.8	15.9	19.9	2500.
5	6	47	15	0.066	0.0	0.0	1.0	2.7	15.9	20.2	2500.
5	6	47	30	0.068	0.0	0.0	0.8	2.6	15.8	20.1	2500.
5	6	47	45	0.065	0.0	0.0	1.0	2.7	15.9	19.9	2500.
5	6	48	0	0.067	0.0	0.0	0.9	2.5	15.7	20.1	2500.
5	6	48	15	0.066	0.0	0.0	0.9	2.5	15.7	19.9	2500.
5	6	48	30	0.066	0.0	0.0	0.8	2.4	15.7	19.9	2500.
5	6	48	45	0.067	0.0	0.0	0.9	2.5	15.9	20.0	2500.
5	6	49	0	0.068	0.0	0.0	1.0	2.4	16.0	19.9	2500.
5	6	49	15	0.069	0.0	0.0	1.0	2.5	15.9	19.9	2500.
5	6	49	30	0.069	0.0	0.0	0.8	2.6	16.0	20.0	2500.
5	6	49	45	0.069	0.0	0.0	1.0	2.6	15.9	20.0	2500.
5	6	50	0	0.070	0.0	0.0	0.8	2.7	15.8	19.8	2500.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	CO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
6	6	50	15	0.071	0.0	0.0	0.8	2.6	15.6	19.9	2500.
6	6	50	30	0.071	0.0	0.0	1.0	2.7	15.5	19.9	2500.
6	6	50	45	0.071	0.0	0.0	1.0	2.7	15.5	19.9	2500.
6	6	51	0	0.071	0.0	0.0	1.0	2.7	15.6	20.0	2500.
6	6	51	15	0.072	0.0	0.0	1.0	2.5	15.9	19.9	2500.
6	6	51	30	0.071	0.0	0.0	0.8	2.6	16.0	19.9	2500.
6	6	51	45	0.070	0.0	0.0	1.0	2.5	16.0	19.9	2500.
6	6	52	0	0.070	0.0	0.0	1.0	2.5	15.8	19.9	2500.
6	6	52	15	0.068	0.0	0.0	1.1	2.4	15.6	19.9	2500.
6	6	52	30	0.068	0.0	0.0	1.0	2.4	15.6	20.0	2500.
6	6	52	45	0.068	0.0	0.0	1.0	2.3	15.6	19.8	2500.
6	6	53	0	0.068	0.0	0.0	1.0	2.3	15.7	19.9	2500.
6	6	53	15	0.067	0.0	0.0	1.0	2.4	15.7	19.7	2500.
6	6	53	30	0.067	0.0	0.0	1.0	2.3	15.8	20.0	2500.
7	6	53	45	0.067	0.0	0.0	1.0	2.2	15.9	19.9	2500.
7	6	54	0	0.067	0.0	0.0	1.1	2.3	16.0	19.9	2500.
7	6	54	15	0.066	0.0	0.0	1.1	2.4	16.0	19.9	2500.
7	6	54	30	0.066	0.0	0.0	1.1	2.3	16.0	20.1	2500.
7	6	54	45	0.067	0.0	0.0	1.0	2.4	15.8	19.9	2500.
7	6	55	0	0.065	0.0	0.0	1.1	2.5	15.7	19.9	2500.
7	6	55	15	0.066	0.0	0.0	1.0	2.4	15.8	20.0	2500.
7	6	55	30	0.065	0.0	0.0	0.9	2.5	16.1	20.0	2500.
7	6	55	45	0.066	0.0	0.0	1.0	2.5	16.2	19.9	2500.
7	6	56	0	0.066	0.0	0.0	0.9	2.4	16.2	19.9	2500.
7	6	56	15	0.066	0.0	0.0	1.1	2.6	16.3	19.8	2500.
7	6	56	30	0.066	0.0	0.0	1.0	2.5	16.3	19.9	2500.
7	6	56	45	0.066	0.0	0.0	1.0	2.7	16.4	19.8	2500.
7	6	57	0	0.066	0.0	0.0	0.9	2.7	16.2	19.8	250 .
7	6	57	15	0.066	0.0	0.0	1.1	2.7	16.0	19.9	2500.
7	6	57	30	0.066	0.0	0.0	1.1	2.7	15.9	20.0	2500.
7	6	57	45	0.066	0.0	0.0	0.9	2.7	16.0	19.9	2500.
7	6	58	0	0.067	0.0	0.0	0.9	2.8	16.2	19.8	2500.
7	6	58	15	0.068	0.0	0.0	0.9	2.9	16.3	19.8	2500.
7	6	58	30	0.068	0.0	0.0	0.9	3.0	16.3	19.9	2500.
7	6	58	45	0.067	0.0	0.0	0.9	3.0	16.3	19.8	2500.
7	6	59	0	0.068	0.0	0.0	1.0	3.1	16.3	20.0	2500.
7	6	59	15	0.068	0.0	0.0	1.0	3.4	16.2	19.8	2500.
7	6	59	30	0.067	0.0	0.0	0.7	3.3	16.3	20.0	2500.
7	6	59	45	0.069	0.0	0.0	0.7	3.3	16.3	20.0	2500.
7	7	0	0	0.069	0.0	0.0	0.9	3.3	16.5	20.1	2500.
7	7	0	15	0.071	0.0	0.0	0.8	3.3	16.6	20.0	2500.
7	7	0	30	0.072	0.0	0.0	0.7	3.4	16.7	20.2	2500.
7	7	0	45	0.074	0.0	0.0	0.9	3.6	16.7	20.1	2500.
7	7	1	0	0.080	0.0	0.0	0.8	3.7	16.6	20.3	2500.
7	7	1	15	0.084	0.0	0.0	0.8	3.9	16.4	20.3	2500.
7	7	1	30	0.086	0.0	0.0	0.8	3.9	16.0	20.4	2500.
7	7	1	45	0.087	0.0	0.0	0.9	4.1	15.8	20.4	2500.
7	7	2	0	0.086	0.0	0.0	0.8	4.1	15.7	20.4	2500.
7	7	2	15	0.084	0.0	0.0	0.8	3.8	15.6	20.4	2500.
7	7	2	30	0.085	0.0	0.0	0.9	3.9	15.6	20.6	2500.

TULSA FLIGHT NUMBER 17 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	7	2	45	0.083	0.0	0.0	0.9	3.8	15.5	20.6	2500.
7	7	3	0	0.076	0.0	0.0	0.9	3.3	15.4	20.6	2500.
7	7	3	15	0.074	0.0	0.0	0.8	3.2	15.2	20.8	2500.
7	7	3	30	0.072	0.0	0.0	0.9	3.1	15.1	20.8	2500.
7	7	3	45	0.072	0.0	0.0	0.8	3.1	15.1	20.7	2500.
7	7	4	0	0.072	0.0	0.0	0.8	3.2	15.1	20.6	2500.
7	7	4	15	0.072	0.0	0.0	0.9	3.3	15.0	20.6	2500.
7	7	4	30	0.072	0.0	0.0	0.8	3.2	14.9	20.8	2500.
7	7	4	45	0.071	0.0	0.0	0.8	3.2	14.9	20.8	2500.
7	7	5	0	0.070	0.0	0.0	0.8	3.2	15.0	20.8	2500.
7	7	5	15	0.070	0.0	0.0	0.8	3.2	15.4	20.9	2500.
7	7	5	30	0.069	0.0	0.0	0.7	3.1	15.6	20.7	2500.
7	7	5	45	0.070	0.0	0.0	1.0	3.2	15.7	20.7	2500.
7	7	6	0	0.066	0.0	0.0	0.9	3.3	15.8	20.7	2500.
7	7	6	15	0.064	0.0	0.0	0.9	3.6	15.7	20.5	2500.
7	7	6	30	0.062	0.0	0.0	1.0	3.5	15.7	20.4	2500.
7	7	6	45	0.062	0.0	0.0	0.9	3.7	15.7	19.7	2500.
7	7	7	0	0.066	0.0	0.0	0.9	3.5	15.7	19.8	2500.
7	7	7	15	0.068	0.0	0.0	0.8	3.4	15.4	20.2	2500.
7	7	7	30	0.066	0.0	0.0	0.9	3.3	15.2	20.1	2500.
7	7	7	45	0.065	0.0	0.0	0.9	3.3	15.3	20.1	2500.
7	7	8	0	0.068	0.0	0.0	1.0	3.4	15.7	20.0	2500.
7	7	8	15	0.065	0.0	0.0	1.0	3.3	15.8	19.4	2500.
7	7	8	30	0.063	0.0	0.0	0.9	3.2	15.7	19.5	2500.
	7	8	45	0.063	0.0	0.0	0.9	3.2	15.7	19.7	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16-1977

LEG	HR	MIN	SEC	O3DIFF PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	36	30	0.072	0.0	0.0	0.8	12.0	14.6	22.8	2500.
1	12	36	45	0.071	0.0	0.0	0.7	12.0	14.5	23.0	2500.
1	12	37	0	0.072	0.0	0.0	0.8	12.7	14.6	23.2	2500.
1	12	37	15	0.072	0.0	0.0	0.7	13.0	14.6	23.0	2500.
1	12	37	30	0.072	0.0	0.0	0.8	12.7	14.5	22.8	2500.
1	12	37	45	0.073	0.0	0.0	0.7	10.5	14.5	22.7	2500.
1	12	38	0	0.074	0.0	0.0	0.8	10.3	14.4	22.7	2500.
1	12	38	15	0.074	0.0	0.0	0.7	11.5	14.0	22.8	2500.
1	12	38	30	0.075	0.0	0.0	0.7	11.9	13.5	22.5	2500.
1	12	38	45	0.076	0.0	0.0	0.7	10.0	13.4	22.5	2500.
1	12	39	0	0.076	0.0	0.0	0.7	15.9	13.2	22.5	2500.
1	12	39	15	0.077	0.0	0.0	0.8	14.1	12.9	22.5	2500.
1	12	39	30	0.079	0.0	0.0	0.9	24.0	12.1	22.5	2500.
1	12	39	45	0.076	0.0	0.0	0.7	24.1	11.5	22.6	2500.
1	12	40	0	0.079	0.0	0.0	0.7	25.4	12.3	22.4	2500.
1	12	40	15	0.080	0.0	0.0	0.8	39.5	13.1	22.6	2500.
1	12	40	30	0.080	0.0	0.0	0.8	47.1	14.0	22.7	2500.
1	12	40	45	0.080	0.0	0.0	0.8	46.3	14.5	22.6	2500.
1	12	41	0	0.080	0.0	0.0	0.9	37.8	15.1	22.5	2500.
1	12	41	15	0.083	0.0	0.0	0.8	45.7	15.0	22.3	2500.
1	12	41	30	0.082	0.0	0.0	0.8	38.6	14.4	22.3	2500.
1	12	41	45	0.082	0.0	0.0	0.9	30.2	14.3	22.3	2500.
1	12	42	0	0.081	0.0	0.0	0.9	46.8	14.6	22.2	2500.
1	12	42	15	0.082	0.0	0.0	1.2	42.2	15.4	22.3	2500.
1	12	42	30	0.081	0.0	0.0	1.0	35.8	15.8	22.2	2500.
1	12	42	45	0.081	0.0	0.0	1.1	29.9	16.1	22.0	2500.
1	12	43	0	0.081	0.0	0.0	1.1	39.3	16.3	22.0	2500.
1	12	43	15	0.082	0.0	0.0	1.0	28.9	16.1	22.1	2500.
1	12	43	30	0.080	0.0	0.0	1.0	27.8	15.9	22.1	2500.
1	12	43	45	0.080	0.0	0.0	1.1	33.2	16.2	22.0	2500.
1	12	44	0	0.082	0.0	0.0	1.1	27.5	16.6	21.7	2500.
1	12	44	15	0.080	0.0	0.0	1.2	22.4	16.8	21.8	2500.
1	12	44	30	0.080	0.0	0.0	1.0	20.3	16.4	21.9	2500.
1	12	44	45	0.082	0.0	0.001	0.9	20.1	15.9	21.9	2500.
1	12	45	0	0.083	0.0	0.001	1.1	22.1	15.5	21.8	2500.
1	12	45	15	0.081	0.0	0.0	0.9	19.7	15.3	21.7	2500.
1	12	45	30	0.081	0.0	0.0	1.0	18.4	15.3	21.9	2500.
1	12	45	45	0.079	0.0	0.0	1.1	17.3	15.6	21.9	2500.
1	12	46	0	0.080	0.0	0.0	1.1	21.7	15.9	22.0	2500.
1	12	46	15	0.081	0.0	0.0	0.9	21.5	16.0	22.0	2500.
1	12	46	30	0.079	0.0	0.0	0.9	26.2	16.0	21.9	2500.
1	12	46	45	0.080	0.0	0.0	1.0	21.5	16.0	22.0	2500.
1	12	47	0	0.080	0.0	0.0	1.1	26.5	16.3	22.3	2500.
1	12	47	15	0.079	0.0	0.0	0.9	22.0	16.4	22.3	2500.
1	12	47	30	0.078	0.0	0.0	1.0	21.3	16.5	22.2	2500.
1	12	47	45	0.077	0.0	0.0	1.0	21.9	16.6	22.1	2500.
1	12	48	0	0.078	0.0	0.0	1.0	24.7	16.8	22.4	2500.
1	12	48	15	0.078	0.0	0.0	1.0	33.4	16.7	22.2	2500.
1	12	48	30	0.078	0.0	0.0	0.9	25.6	16.4	22.2	2500.
1	12	48	45	0.078	0.0	0.0	0.7	28.6	16.0	22.5	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	H-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	49	0	0.074	0.0	0.0	0.7	55.9	15.6	22.5	2500.
1	12	49	15	0.074	0.0	0.0	0.8	29.5	15.6	22.5	2500.
1	12	49	30	0.074	0.0	0.0	0.8	29.2	16.0	22.4	2500.
1	12	49	45	0.075	0.0	0.0	1.0	33.9	16.0	22.3	2500.
1	12	50	0	0.074	0.0	0.0	1.0	45.7	15.9	22.6	2500.
1	12	50	15	0.076	0.0	0.0	0.9	52.3	15.7	22.4	2500.
1	12	50	30	0.076	0.0	0.0	0.9	40.5	15.7	22.4	2500.
1	12	50	45	0.076	0.0	0.0	0.8	37.1	15.5	22.7	2500.
1	12	51	0	0.074	0.0	0.0	0.8	49.2	15.5	22.7	2500.
1	12	51	15	0.074	0.0	0.0	0.8	38.8	15.6	22.7	2500.
1	12	51	30	0.070	0.0	0.0	0.9	35.8	15.7	22.7	2500.
1	12	51	45	0.069	0.0	0.0	0.8	33.2	15.8	22.7	2500.
1	12	52	0	0.071	0.0	0.0	0.9	38.4	15.7	22.8	2500.
1	12	52	15	0.074	0.0	0.0	0.9	41.9	15.6	22.6	2500.
1	12	52	30	0.074	0.0	0.0	0.9	57.2	15.7	22.9	2500.
1	12	52	45	0.076	0.0	0.0	0.8	85.3	15.8	22.6	2500.
1	12	53	0	0.076	0.0	0.0	0.8	67.4	16.0	22.6	2500.
1	12	53	15	0.075	0.0	0.0	0.9	52.2	16.3	22.6	2500.
1	12	53	30	0.075	0.0	0.0	0.8	54.9	16.4	22.7	2500.
1	12	53	45	0.076	0.0	0.0	1.0	65.5	16.5	22.7	2500.
1	12	54	0	0.076	0.0	0.0	0.9	82.1	16.2	22.9	2500.
1	12	54	15	0.076	0.0	0.0	0.8	62.3	15.6	22.5	2500.
1	12	54	30	0.075	0.0	0.0	0.7	43.9	15.5	22.8	2500.
1	12	54	45	0.075	0.0	0.0	0.8	46.1	15.6	22.8	2500.
1	12	55	0	0.075	0.0	0.0	0.9	93.2	15.9	22.9	2500.
1	12	55	15	0.073	0.0	0.0	0.7	86.8	16.0	22.9	2500.
1	12	55	30	0.073	0.0	0.0	0.8	109.5	16.0	22.9	2500.
1	12	55	45	0.072	0.0	0.0	0.9	101.7	16.0	23.0	2500.
1	12	56	0	0.071	0.0	0.0	0.7	67.8	16.3	22.9	2500.
1	12	56	15	0.070	0.0	0.0	0.6	109.5	16.3	22.9	2500.
1	12	56	30	0.071	0.0	0.0	0.6	40.5	16.2	23.0	2500.
1	12	56	45	0.071	0.0	0.0	0.7	19.5	16.0	22.9	2500.
1	12	57	0	0.070	0.0	0.0	0.6	22.5	15.6	23.0	2500.
1	12	57	15	0.071	0.0	0.0	0.6	23.8	15.4	23.1	2500.
1	12	57	30	0.071	0.0	0.0	0.8	19.8	15.3	23.1	2500.
1	12	57	45	0.072	0.0	0.0	0.6	16.3	14.8	22.9	2500.
1	12	58	0	0.072	0.0	0.0	0.6	15.3	14.6	23.3	2500.
1	12	58	15	0.071	0.0	0.0	0.6	11.2	14.9	23.3	2500.
1	12	58	30	0.071	0.0	0.0	0.7	11.7	15.0	23.3	2500.
1	12	58	45	0.071	0.0	0.0	0.6	11.1	15.1	23.3	2500.
1	12	59	0	0.070	0.0	0.0	0.6	10.4	15.3	23.3	2500.
1	12	59	15	0.071	0.0	0.0	0.8	10.9	15.4	23.4	2500.
1	12	59	30	0.070	0.0	0.0	0.6	10.9	15.4	23.5	2500.
1	12	59	45	0.072	0.0	0.0	0.7	11.8	15.6	23.4	2500.
1	13	0	0	0.072	0.0	0.0	0.7	15.4	15.7	23.3	2500.
1	13	0	15	0.071	0.0	0.0	0.6	14.7	15.5	23.2	2500.
1	13	0	30	0.072	0.0	0.0	0.7	14.0	15.4	23.4	2500.
1	13	0	45	0.073	0.0	0.0	0.7	13.6	15.7	23.3	2500.
1	13	1	0	0.074	0.0	0.0	0.7	12.2	15.9	23.5	2500.
1	13	1	15	0.074	0.0	0.0	0.6	13.7	15.9	23.5	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	13	1	30	0.075	0.0	0.0	0.6	17.5	15.6	23.4	2500.
2	13	1	45	0.076	0.0	0.0	0.8	19.5	15.5	23.4	2500.
2	13	2	0	0.075	0.0	0.001	0.8	23.1	15.5	23.4	2500.
2	13	2	15	0.076	0.0	0.0	0.7	16.9	15.3	23.7	2500.
2	13	2	30	0.076	0.0	0.0	0.7	26.3	15.2	23.5	2500.
2	13	2	45	0.076	0.0	0.0	0.6	38.6	15.3	23.7	2500.
2	13	3	0	0.076	0.0	0.0	0.7	58.7	15.2	23.4	2500.
2	13	3	15	0.077	0.0	0.0	0.8	54.0	15.3	23.5	2500.
2	13	3	30	0.077	0.0	0.0	0.7	32.0	15.6	23.7	2500.
2	13	3	45	0.077	0.0	0.0	0.6	40.2	15.9	23.7	2500.
2	13	4	0	0.076	0.0	0.0	0.6	63.0	15.8	23.7	2500.
3	13	4	15	0.077	0.0	0.001	0.7	83.2	15.7	23.4	2500.
3	13	4	30	0.076	0.0	0.0	0.6	109.5	15.4	23.7	2500.
3	13	4	45	0.078	0.0	0.0	0.6	92.5	15.5	23.6	2500.
3	13	5	0	0.076	0.0	0.0	0.7	109.4	15.7	23.4	2500.
3	13	5	15	0.074	0.0	0.0	0.7	59.8	15.7	23.6	2500.
3	13	5	30	0.074	0.0	0.0	0.6	60.2	15.1	23.3	2500.
3	13	5	45	0.073	0.0	0.0	0.6	38.8	14.6	23.4	2500.
3	13	6	0	0.073	0.0	0.0	0.6	40.7	14.7	23.4	2500.
3	13	6	15	0.072	0.0	0.0	0.6	29.4	15.1	23.3	2500.
3	13	6	30	0.071	0.0	0.0	0.6	39.4	15.1	23.7	2500.
3	13	6	45	0.071	0.0	0.0	0.5	32.0	15.0	23.4	2500.
3	13	7	0	0.070	0.0	0.0	0.7	41.6	15.2	23.5	2500.
3	13	7	15	0.071	0.0	0.0	0.6	29.4	15.5	23.4	2500.
3	13	7	30	0.070	0.0	0.0	0.7	30.8	15.8	23.4	2500.
3	13	7	45	0.069	0.0	0.0	0.6	15.3	16.2	23.5	2500.
3	13	8	0	0.070	0.0	0.0	0.6	27.7	16.4	23.4	2500.
3	13	8	15	0.071	0.0	0.0	0.7	19.5	16.2	23.2	2500.
3	13	8	30	0.071	0.0	0.0	0.6	25.3	16.1	23.6	2500.
3	13	8	45	0.070	0.0	0.0	0.6	27.7	15.9	23.5	2500.
3	13	9	0	0.071	0.0	0.0	0.7	27.0	15.8	23.4	2500.
3	13	9	15	0.072	0.0	0.0	0.7	28.5	15.9	23.5	2500.
3	13	9	30	0.072	0.0	0.0	0.6	25.3	16.1	23.3	2500.
3	13	9	45	0.071	0.0	0.0	0.6	25.4	16.3	23.4	2500.
3	13	10	0	0.071	0.0	0.0	0.7	21.6	16.4	23.5	2500.
3	13	10	15	0.072	0.0	0.001	0.7	17.7	16.3	23.4	2500.
3	13	10	30	0.072	0.0	0.0	0.7	12.1	16.3	23.4	2500.
3	13	10	45	0.074	0.0	0.0	0.7	15.0	16.4	23.4	2500.
3	13	11	0	0.076	0.0	0.0	0.8	18.9	16.5	23.5	2500.
3	13	11	15	0.077	0.0	0.0	0.7	17.3	16.4	23.5	2500.
3	13	11	30	0.077	0.0	0.0	0.5	19.3	16.3	23.3	2500.
3	13	11	45	0.076	0.0	0.0	0.8	17.0	16.6	23.5	2500.
3	13	12	0	0.076	0.0	0.0	0.8	12.4	16.9	23.3	2500.
3	13	12	15	0.076	0.0	0.0	0.7	13.6	16.9	23.1	2500.
3	13	12	30	0.077	0.0	0.0	0.7	12.2	16.8	23.1	2500.
3	13	12	45	0.076	0.0	0.0	0.7	10.6	16.6	23.1	2500.
3	13	13	0	0.076	0.0	0.0	0.8	11.7	16.7	23.3	2500.
3	13	13	15	0.079	0.0	0.0	0.7	25.2	16.8	22.9	2500.
3	13	13	30	0.080	0.0	0.0	0.9	42.7	16.7	23.0	2500.
3	13	13	45	0.078	0.0	0.0	0.7	30.2	16.5	22.8	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	13	14	0	0.075	0.0	0.0	0.8	34.8	16.4	22.8	2500.
3	13	14	15	0.076	0.0	0.0	0.9	20.3	16.5	22.7	2500.
3	13	14	30	0.077	0.0	0.0	0.9	42.1	16.6	22.8	2500.
3	13	14	45	0.078	0.0	0.0	0.5	15.7	16.6	22.8	2500.
3	13	15	0	0.078	0.0	0.0	0.7	47.8	16.4	22.7	2500.
3	13	15	15	0.078	0.0	0.0	0.7	17.4	16.1	22.6	2500.
3	13	15	30	0.076	0.0	0.0	0.8	35.7	15.9	22.7	2500.
3	13	15	45	0.077	0.0	0.0	0.7	21.2	15.9	22.6	2500.
3	13	16	0	0.078	0.0	0.0	0.8	41.2	16.1	22.6	2500.
3	13	16	15	0.078	0.0	0.0	0.8	19.5	16.3	22.8	2500.
3	13	16	30	0.079	0.0	0.0	0.8	42.9	16.4	22.8	2500.
3	13	16	45	0.078	0.0	0.0	0.8	18.6	16.4	22.8	2500.
3	13	17	0	0.079	0.0	0.0	0.7	42.4	16.2	22.6	2500.
3	13	17	15	0.078	0.0	0.0	0.7	14.3	16.1	22.8	2500.
3	13	17	30	0.078	0.0	0.0	0.7	21.0	16.1	22.6	2500.
3	13	17	45	0.079	0.0	0.0	0.9	20.4	16.0	22.7	2500.
3	13	18	0	0.078	0.0	0.0	1.0	23.5	16.1	22.9	2500.
3	13	18	15	0.078	0.0	0.0	0.9	20.0	16.3	22.9	2500.
4	13	18	30	0.080	0.0	0.0	1.0	25.9	16.4	22.9	2500.
4	13	18	45	0.080	0.0	0.0	1.0	39.3	16.5	22.7	2500.
4	13	19	0	0.080	0.0	0.0	0.8	29.5	16.7	22.9	2500.
4	13	19	15	0.079	0.0	0.0	0.9	30.8	17.0	22.6	2500.
4	13	19	30	0.079	0.0	0.0	0.9	31.2	17.0	22.6	2500.
4	13	19	45	0.079	0.0	0.0	0.8	48.5	17.0	22.7	2500.
4	13	20	0	0.079	0.0	0.0	0.9	18.9	17.0	22.7	2500.
4	13	20	15	0.079	0.0	0.0	0.9	39.4	17.2	22.8	2500.
4	13	20	30	0.079	0.0	0.0	1.0	16.7	17.2	22.6	2500.
4	13	20	45	0.080	0.0	0.0	1.0	50.5	17.0	22.7	2500.
5	13	21	0	0.080	0.0	0.0	1.0	14.6	17.0	22.7	2500.
5	13	21	15	0.080	0.0	0.0	0.9	39.9	17.3	22.9	2500.
5	13	21	30	0.081	0.0	0.0	1.0	29.4	17.7	22.8	2500.
5	13	21	45	0.081	0.0	0.0	1.0	37.1	17.8	22.8	2500.
5	13	22	0	0.075	0.0	0.0	1.0	47.8	17.9	23.1	2500.
5	13	22	15	0.071	0.0	0.0	0.9	15.8	18.0	23.1	2500.
5	13	22	30	0.076	0.0	0.0	1.1	36.7	18.3	23.1	2500.
5	13	22	45	0.075	0.0	0.0	1.0	45.8	18.3	23.2	2500.
5	13	23	0	0.078	0.0	0.0	0.9	19.4	17.9	23.1	2500.
5	13	23	15	0.080	0.0	0.0	1.0	55.9	17.5	23.1	2500.
5	13	23	30	0.079	0.0	0.0	1.0	14.5	17.3	23.1	2500.
5	13	23	45	0.079	0.0	0.0	0.9	37.9	17.1	23.1	2500.
5	13	24	0	0.080	0.0	0.0	0.9	20.3	17.3	23.2	2500.
5	13	24	15	0.080	0.0	0.0	0.9	42.4	17.4	23.2	2500.
5	13	24	30	0.080	0.0	0.0	0.9	16.0	17.5	22.9	2500.
5	13	24	45	0.081	0.0	0.0	0.9	31.5	17.6	22.8	2500.
5	13	25	0	0.082	0.0	0.0	1.0	22.8	17.6	22.8	2500.
5	13	25	15	0.081	0.0	0.0	0.9	28.1	17.5	23.0	2500.
5	13	25	30	0.081	0.0	0.0	0.8	28.2	17.0	22.8	2500.
5	13	25	45	0.080	0.0	0.0	0.9	25.0	16.5	22.6	2500.
5	13	26	0	0.081	0.0	0.0	0.8	23.4	16.2	22.7	2500.
5	13	26	15	0.080	0.0	0.0	0.8	24.8	16.4	22.7	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPB	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	13	26	30	0.083	0.0	0.0	0.9	11.1	16.6	22.4	2500.
5	13	26	45	0.082	0.0	0.0	0.8	5.4	16.7	22.5	2500.
5	13	27	0	0.083	0.0	0.0	0.8	3.9	16.4	22.4	2500.
5	13	27	15	0.083	0.0	0.0	0.9	4.8	16.3	22.3	2500.
5	13	27	30	0.082	0.0	0.0	0.8	4.8	16.5	22.6	2500.
5	13	27	45	0.080	0.0	0.0	0.8	18.1	16.5	22.4	2500.
5	13	28	0	0.079	0.0	0.0	0.7	31.8	16.5	22.4	2500.
5	13	28	15	0.077	0.0	0.0	0.8	30.3	16.5	22.3	2500.
5	13	28	30	0.077	0.0	0.0	0.8	31.0	16.4	22.5	2500.
5	13	28	45	0.076	0.0	0.0	0.9	24.0	16.4	22.4	2500.
5	13	29	0	0.077	0.0	0.0	0.8	28.5	16.6	22.5	2500.
5	13	29	15	0.077	0.0	0.0	0.9	22.8	16.5	22.5	2500.
5	13	29	30	0.078	0.0	0.0	0.7	28.3	16.4	22.6	2500.
5	13	29	45	0.078	0.0	0.0	0.7	23.4	16.6	22.5	2500.
5	13	30	0	0.076	0.0	0.0	0.7	17.6	16.8	22.5	2500.
5	13	30	15	0.074	0.0	0.0	0.7	20.2	16.8	22.7	2500.
5	13	30	30	0.073	0.0	0.0	0.7	24.9	16.7	22.7	2500.
5	13	30	45	0.071	0.0	0.0	0.7	31.4	16.5	22.4	2500.
5	13	31	0	0.071	0.0	0.0	0.9	17.0	16.4	22.6	2500.
5	13	31	15	0.070	0.0	0.0	0.8	28.9	16.3	22.7	2500.
5	13	31	30	0.070	0.0	0.0	0.6	20.2	16.0	22.8	2500.
5	13	31	45	0.071	0.0	0.0	0.6	7.9	15.6	22.8	2500.
5	13	32	0	0.071	0.0	0.0	0.8	8.3	15.7	23.0	2500.
5	13	32	15	0.071	0.0	0.0	0.7	12.5	15.8	23.0	2500.
5	13	32	30	0.071	0.0	0.0	0.8	12.8	15.6	23.0	2500.
5	13	32	45	0.071	0.0	0.0	0.9	10.1	15.7	22.9	2500.
5	13	33	0	0.071	0.0	0.0	0.7	6.7	15.6	23.1	2500.
5	13	33	15	0.071	0.0	0.0	0.7	5.7	15.6	23.4	2500.
5	13	33	30	0.071	0.0	0.0	0.7	6.7	15.4	23.4	2500.
5	13	33	45	0.072	0.0	0.0	0.6	3.2	15.5	23.2	2500.
5	13	34	0	0.071	0.0	0.0	0.7	2.4	15.4	23.4	2500.
5	13	34	15	0.071	0.0	0.0	0.8	2.2	15.6	23.4	2500.
5	13	34	30	0.072	0.0	0.0	0.8	2.3	15.8	23.5	2500.
5	13	34	45	0.071	0.0	0.0	0.7	2.0	15.8	23.4	2500.
5	13	35	0	0.071	0.0	0.0	0.6	1.7	15.5	23.5	2500.
5	13	35	15	0.071	0.0	0.0	0.7	1.5	15.5	23.5	2500.
5	13	35	30	0.072	0.0	0.0	0.7	1.7	15.4	23.4	2500.
5	13	35	45	0.070	0.0	0.0	0.6	1.7	15.4	23.3	2500.
5	13	36	0	0.070	0.0	0.0	0.7	1.8	15.3	23.4	2500.
5	13	36	15	0.072	0.0	0.0	0.7	2.0	15.3	23.4	2500.
5	13	36	30	0.073	0.0	0.0	0.7	2.2	15.6	23.4	2500.
6	13	36	45	0.071	0.0	0.0	0.5	2.4	15.6	23.5	2500.
6	13	37	0	0.074	0.0	0.0	0.6	2.5	15.8	23.4	2500.
6	13	37	15	0.074	0.0	0.0	0.7	2.9	15.8	23.4	2500.
6	13	37	30	0.074	0.0	0.0	0.7	2.2	15.6	23.7	2500.
6	13	37	45	0.076	0.0	0.0	0.7	2.6	15.5	23.6	2500.
6	13	38	0	0.074	0.0	0.0	0.8	2.5	15.5	23.6	2500.
6	13	38	15	0.075	0.0	0.0	0.8	2.5	15.6	23.5	2500.
6	13	38	30	0.075	0.0	0.0	0.6	2.8	15.7	23.4	2500.
6	13	38	45	0.074	0.0	0.0	0.6	2.5	15.8	23.8	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	13	39	0	0.072	0.0	0.0	0.7	2.5	16.1	23.7	2500.
7	13	39	15	0.073	0.0	0.0	0.7	2.2	16.4	23.5	2500.
7	13	39	30	0.072	0.0	0.0	0.7	2.2	16.4	23.5	2500.
7	13	39	45	0.071	0.0	0.0	0.6	2.3	16.3	23.6	2500.
7	13	40	0	0.071	0.0	0.0	0.7	1.9	16.2	23.6	2500.
7	13	40	15	0.070	0.0	0.0	0.7	2.0	16.3	23.4	2500.
7	13	40	30	0.070	0.0	0.0	0.8	1.8	16.2	23.4	2500.
7	13	40	45	0.070	0.0	0.0	0.7	2.0	16.2	23.6	2500.
7	13	41	0	0.071	0.0	0.0	0.7	2.1	16.2	23.7	2500.
7	13	41	15	0.072	0.0	0.0	0.6	2.1	16.1	23.5	2500.
7	13	41	30	0.070	0.0	0.0	0.8	2.0	16.2	23.5	2500.
7	13	41	45	0.071	0.0	0.0	0.6	2.2	16.4	23.6	2500.
7	13	42	0	0.071	0.0	0.0	0.7	2.5	16.6	23.5	2500.
7	13	42	15	0.071	0.0	0.0	0.7	2.3	16.8	23.4	2500.
7	13	42	30	0.072	0.0	0.0	0.6	2.3	16.7	23.4	2500.
7	13	42	45	0.074	0.0	0.0	0.6	2.9	16.7	23.7	2500.
7	13	43	0	0.073	0.0	0.0	0.7	2.8	16.8	23.7	2500.
7	13	43	15	0.073	0.0	0.0	0.7	2.7	16.6	23.7	2500.
7	13	43	30	0.074	0.0	0.0	0.7	2.6	16.4	23.3	2500.
7	13	43	45	0.074	0.0	0.0	0.6	3.2	16.4	23.4	2500.
7	13	44	0	0.074	0.0	0.0	0.8	2.9	16.6	23.3	2500.
7	13	44	15	0.076	0.0	0.0	0.8	4.1	16.7	23.4	2500.
7	13	44	30	0.078	0.0	0.0	0.7	5.5	16.7	23.4	2500.
7	13	44	45	0.078	0.0	0.0	0.8	5.8	16.9	23.3	2500.
7	13	45	0	0.079	0.0	0.0	0.8	6.8	17.3	23.3	2500.
7	13	45	15	0.079	0.0	0.0	0.8	10.2	17.2	23.2	2500.
7	13	45	30	0.078	0.0	0.0	0.7	8.9	16.9	23.0	2500.
7	13	45	45	0.078	0.0	0.0	0.9	10.2	16.5	23.0	2500.
7	13	46	0	0.081	0.0	0.0	0.7	10.0	16.3	23.0	2500.
7	13	46	15	0.083	0.0	0.0	0.8	12.5	16.6	23.0	2500.
7	13	46	30	0.084	0.0	0.0	0.8	14.1	17.0	22.9	2500.
7	13	46	45	0.085	0.0	0.0	0.8	14.8	17.1	22.9	2500.
7	13	47	0	0.086	0.0	0.0	0.9	15.1	17.1	23.0	2500.
7	13	47	15	0.085	0.0	0.0	0.7	12.5	17.0	23.0	2500.
7	13	47	30	0.086	0.0	0.0	0.8	15.0	16.9	22.9	2500.
7	13	47	45	0.084	0.0	0.0	0.7	12.6	16.7	23.0	2500.
7	13	48	0	0.084	0.0	0.0	0.8	10.5	16.7	23.0	2500.
7	13	48	15	0.083	0.0	0.0	0.7	10.3	16.8	23.0	2500.
7	13	48	30	0.083	0.0	0.0	0.8	11.4	16.9	22.9	2500.
7	13	48	45	0.082	0.0	0.0	0.8	12.2	16.7	22.9	2500.
7	13	49	0	0.081	0.0	0.0	0.7	12.1	16.5	22.9	2500.
7	13	49	15	0.080	0.0	0.0	0.8	15.0	16.6	22.9	2500.
7	13	49	30	0.081	0.0	0.0	0.7	39.6	17.0	22.9	2500.
7	13	49	45	0.082	0.0	0.0	0.8	17.9	17.6	22.9	2500.
7	13	50	0	0.080	0.0	0.0	0.9	36.8	18.0	22.8	2500.
7	13	50	15	0.080	0.0	0.0	1.0	18.1	18.0	22.9	2500.
7	13	50	30	0.080	0.0	0.0	1.0	17.3	17.9	22.9	2500.
7	13	50	45	0.081	0.0	0.0	1.1	47.7	17.6	22.9	2500.
7	13	51	0	0.082	0.0	0.0	1.0	17.0	17.4	22.9	2500.
7	13	51	15	0.081	0.0	0.0	1.0	37.7	17.2	22.7	2500.

TULSA FLIGHT NUMBER 18 DATE: 9-16

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
	7	13	51	30	0.080	0.0	0.0	0.9	16.1	17.5	22.7	2500.
	7	13	51	45	0.082	0.0	0.0	1.0	35.5	17.8	22.6	2500.
	8	13	52	0	0.079	0.0	0.0	1.0	15.8	17.8	22.7	2500.
	8	13	52	15	0.082	0.0	0.0	1.1	20.9	17.6	22.8	2500.
	8	13	52	30	0.083	0.0	0.001	0.8	28.6	17.3	22.5	2500.
	8	13	52	45	0.083	0.0	0.0	1.0	28.8	17.2	22.8	2500.
	8	13	53	0	0.082	0.0	0.0	0.9	27.6	17.1	22.8	2500.
	8	13	53	15	0.081	0.0	0.0	0.8	24.0	16.9	22.9	2500.
	8	13	53	30	0.079	0.0	0.0	0.9	27.6	16.7	22.7	2500.
	8	13	53	45	0.077	0.0	0.0	0.8	33.4	16.8	22.8	2500.
	8	13	54	0	0.077	0.0	0.0	1.0	28.3	17.0	22.8	2500.
	8	13	54	15	0.075	0.0	0.0	1.0	25.3	17.1	23.0	2500.
S	1	13	56	0	0.081	0.0	0.0	0.8	6.3	17.1	24.2	1500.
S	1	13	56	15	0.080	0.0	0.0	0.7	5.5	17.2	24.5	1600.
S	1	13	56	30	0.081	0.0	0.0	0.7	5.2	17.2	24.5	1650.
S	1	13	56	45	0.082	0.0	0.0	0.7	5.2	17.3	24.6	1750.
S	1	13	57	0	0.081	0.0	0.0	0.8	5.0	17.3	24.8	1800.
S	1	13	57	15	0.081	0.0	0.0	0.9	4.6	17.1	24.7	1900.
S	1	13	57	30	0.080	0.0	0.0	0.8	3.9	16.7	24.7	1950.
S	1	14	0	15	0.084	0.0	0.0	0.8	4.2	16.4	24.6	3000.
S	1	14	0	30	0.083	0.0	0.0	0.8	3.9	16.4	24.3	3100.
S	1	14	0	45	0.083	0.0	0.0	0.8	3.4	16.8	24.3	3200.
S	1	14	1	0	0.084	0.0	0.0	0.8	3.3	16.9	24.2	3300.
S	1	14	1	15	0.084	0.0	0.0	0.9	3.8	16.8	24.0	3400.
S	1	14	1	30	0.086	0.0	0.0	0.9	3.7	16.6	24.0	3550.
S	1	14	1	45	0.086	0.0	0.0	0.8	3.5	16.2	23.6	3650.
S	1	14	2	0	0.084	0.0	0.0	0.8	3.3	15.8	23.5	3750.
S	1	14	2	15	0.085	0.0	0.0	0.7	3.7	15.8	23.3	3900.
S	1	14	2	30	0.085	0.0	0.0	0.8	2.8	15.6	23.2	4000.
S	1	14	2	45	0.084	0.0	0.0	0.7	2.6	15.8	23.0	4100.
S	1	14	3	0	0.084	0.0	0.0	0.8	2.7	16.0	22.7	4250.
S	1	14	3	15	0.084	0.0	0.0	0.8	3.3	16.0	22.3	4350.
S	1	14	3	30	0.084	0.0	0.0	0.7	3.1	15.6	22.1	4450.
S	1	14	3	45	0.084	0.0	0.0	0.7	2.8	14.9	22.0	4550.
S	1	14	4	0	0.083	0.0	0.0	0.8	2.6	14.1	22.0	4700.
S	1	14	4	15	0.082	0.0	0.0	0.9	2.0	13.6	21.8	4800.
S	1	14	4	30	0.084	0.0	0.0	0.8	1.9	13.2	21.3	4900.
S	1	14	4	45	0.083	0.0	0.0	0.7	1.7	12.4	21.3	5000.
S	1	14	5	0	0.082	0.0	0.0	0.7	1.2	11.4	21.0	5100.
S	1	14	5	15	0.081	0.0	0.0	0.7	1.2	10.2	21.1	5200.
S	1	14	5	30	0.078	0.0	0.0	0.6	0.6	9.4	20.7	5250.
S	1	14	5	45	0.078	0.0	0.0	0.7	0.7	9.3	20.6	5350.
S	1	14	6	0	0.077	0.0	0.0	0.7	0.4	9.4	20.5	5400.
S	1	14	6	15	0.077	0.0	0.0	0.6	0.2	9.8	20.4	5500.
S	1	14	6	30	0.076	0.0	0.0	0.6	0.1	10.1	20.0	5550.
S	1	14	6	45	0.075	0.0	0.0	0.6	0.0	10.1	20.3	5650.
S	1	14	7	0	0.076	0.0	0.0	0.7	0.0	10.3	20.1	5700.
S	1	14	7	15	0.076	0.0	0.0	0.4	0.0	10.6	20.0	5800.
S	1	14	7	30	0.073	0.0	0.0	0.5	0.0	10.7	20.0	5850.
S	1	14	7	45	0.070	0.0	0.0	0.4	0.0	10.5	20.0	5900.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	8	0	0.068	0.0	0.0	0.5	0.0	9.9	19.8	6000.
S 1	14	8	15	0.066	0.0	0.0	0.5	0.0	9.2	19.7	6100.
S 1	14	8	30	0.066	0.0	0.0	0.5	0.0	8.8	19.6	6200.
S 1	14	8	45	0.065	0.0	0.0	0.5	0.0	8.6	19.6	6300.
S 1	14	9	0	0.065	0.0	0.0	0.5	0.0	8.6	19.5	6400.
S 1	14	9	15	0.066	0.0	0.0	0.6	0.0	8.7	19.6	6450.
S 1	14	9	30	0.065	0.0	0.0	0.4	0.0	8.6	19.6	6550.
S 1	14	9	45	0.066	0.0	0.0	0.4	0.0	8.4	19.5	6650.
S 1	14	10	0	0.065	0.0	0.0	0.6	0.0	8.3	19.6	6700.
S 1	14	10	15	0.065	0.0	0.0	0.5	0.0	8.0	19.3	6800.
S 1	14	10	30	0.064	0.0	0.0	0.4	0.0	7.5	18.7	6900.
S 1	14	10	45	0.063	0.0	0.0	0.4	0.0	7.1	18.7	7000.
S 1	14	11	0	0.063	0.0	0.0	0.4	0.0	6.8	18.4	7050.
S 1	14	11	15	0.064	0.0	0.0	0.5	0.0	6.7	18.1	7150.
S 1	14	11	30	0.063	0.0	0.0	0.5	0.0	6.4	18.1	7200.
S 1	14	11	45	0.064	0.0	0.0	0.5	0.0	5.8	17.7	7300.
S 1	14	12	0	0.064	0.0	0.0	0.5	0.0	4.9	17.6	7400.
S 1	14	12	15	0.056	0.0	0.0	0.5	0.0	4.0	17.0	7500.
S 1	14	12	30	0.056	0.0	0.0	0.5	0.0	3.3	16.7	7600.
S 1	14	12	45	0.056	0.0	0.0	0.5	0.0	3.0	16.5	7700.
S 1	14	13	0	0.055	0.0	0.0	0.6	0.0	2.8	16.6	7750.
S 1	14	13	15	0.054	0.0	0.0	0.4	0.0	2.6	16.5	7850.
S 1	14	13	30	0.053	0.0	0.0	0.4	0.0	2.3	16.0	7950.
S 1	14	13	45	0.054	0.0	0.0	0.5	0.0	1.7	15.7	8000.
S 1	14	14	0	0.053	0.0	0.0	0.4	0.0	1.1	15.4	8100.
S 1	14	14	15	0.053	0.0	0.0	0.5	0.0	0.6	15.5	8200.
S 1	14	14	30	0.054	0.0	0.0	0.5	0.0	0.6	15.2	8250.
S 1	14	14	45	0.054	0.0	0.0	0.5	0.0	0.6	15.0	8350.
S 1	14	15	0	0.054	0.0	0.0	0.5	0.0	0.8	14.8	8450.
S 1	14	15	15	0.053	0.0	0.0	0.5	0.0	1.0	14.9	8500.
S 1	14	15	30	0.053	0.0	0.0	0.5	0.0	1.1	14.7	8600.
S 1	14	15	45	0.052	0.0	0.0	0.4	0.0	1.1	14.7	8700.
S 1	14	16	0	0.053	0.0	0.0	0.6	0.0	0.9	14.5	8750.
S 1	14	16	15	0.053	0.0	0.0	0.5	0.0	0.6	14.2	8850.
S 1	14	16	30	0.052	0.0	0.0	0.6	0.0	0.3	14.1	8900.
S 1	14	16	45	0.052	0.0	0.0	0.5	0.0	0.0	13.8	9000.
S 1	14	17	0	0.054	0.0	0.0	0.5	0.0	-0.1	13.5	9100.
S 1	14	17	15	0.054	0.0	0.0	0.5	0.0	-0.1	13.5	9200.
S 1	14	17	30	0.053	0.0	0.0	0.4	0.0	0.2	13.1	9300.
S 1	14	17	45	0.053	0.0	0.0	0.4	0.0	0.8	12.9	9400.
S 1	14	18	0	0.052	0.0	0.0	0.5	0.0	1.3	12.8	9500.
S 1	14	18	15	0.053	0.0	0.0	0.5	0.0	1.8	12.1	9600.
S 1	14	18	30	0.051	0.0	0.0	0.6	0.0	1.8	12.1	9700.
S 1	14	18	45	0.051	0.0	0.0	0.4	0.0	1.5	12.1	9800.
S 1	14	19	0	0.050	0.0	0.0	0.6	0.0	1.3	11.7	9900.
S 1	14	19	15	0.049	0.0	0.0	0.5	0.0	1.5	11.8	10000.
S 1	14	19	30	0.050	0.0	0.0	0.5	0.0	1.8	11.4	10100.
S 1	14	19	45	0.050	0.0	0.0	0.5	0.0	2.1	11.5	10200.
S 1	14	20	0	0.052	0.0	0.0	0.7	0.0	2.1	11.1	10300.
S 1	14	20	15	0.051	0.0	0.0	0.5	0.0	2.1	10.8	10400.

TULSA FLIGHT NUMBER 18 DATE: 9-16

LEG	HR	MIN	SEC	OZONE PPM	SO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	20	30	0.052	0.0	0.0	0.5	0.0	2.2	10.5	10500.
S 1	14	20	45	0.052	0.0	0.0	0.5	0.0	2.2	10.3	10600.
S 1	14	21	0	0.053	0.0	0.0	0.4	0.0	2.2	9.9	10700.
S 1	14	21	15	0.051	0.0	0.0	0.4	0.0	2.1	9.8	10800.
S 1	14	21	30	0.053	0.0	0.0	0.5	0.0	2.3	9.5	10900.
S 1	14	21	45	0.053	0.0	0.0	0.6	0.0	2.5	9.2	11000.
S 1	14	22	0	0.051	0.0	0.0	0.4	0.0	2.8	9.0	11100.
S 1	14	22	15	0.051	0.0	0.0	0.4	0.0	2.9	9.0	11200.
S 1	14	22	30	0.050	0.0	0.0	0.6	0.0	2.9	8.4	11300.
S 1	14	22	45	0.048	0.0	0.0	0.6	0.0	2.8	8.3	11400.
S 1	14	23	0	0.048	0.0	0.0	0.5	0.0	2.7	8.0	11500.
S 1	14	23	15	0.050	0.0	0.0	0.5	0.0	2.5	7.7	11600.
S 1	14	23	30	0.048	0.0	0.0	0.5	0.0	2.3	7.6	11700.
S 1	14	23	45	0.049	0.0	0.0	0.5	0.0	2.1	7.2	11800.
S 1	14	24	0	0.049	0.0	0.0	0.5	0.0	2.2	6.9	11900.
S 1	14	24	15	0.049	0.0	0.0	0.5	0.0	2.1	6.7	12000.

TULSA FLIGHT NUMBER 19 DATE: 9-17-1977

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	5	39	0	0.032	0.0	0.0	0.9	******	19.9	21.4	1500.
S	1	5	39	15	0.032	0.0	0.0	0.9	******	19.9	21.4	1600.
S	1	5	39	30	0.039	0.0	0.0	0.9	******	19.8	21.5	1750.
S	1	5	39	45	0.047	0.0	0.0	0.9	******	19.7	21.6	1900.
S	1	5	40	0	0.053	0.0	0.0	1.0	******	19.7	21.6	2000.
S	1	5	40	15	0.062	0.0	0.0	1.4	******	19.5	21.6	2150.
S	1	5	40	30	0.072	0.0	0.0	0.8	******	19.1	21.7	2250.
S	1	5	40	45	0.075	0.0	0.0	0.8	******	18.6	21.6	2400.
S	1	5	41	0	0.075	0.0	0.0	0.7	******	18.3	21.6	2500.
S	1	5	41	15	0.074	0.0	0.0	0.7	******	17.8	21.6	2600.
S	1	5	41	30	0.075	0.0	0.0	0.7	******	17.3	21.4	2700.
S	1	5	41	45	0.072	0.0	0.0	0.6	******	16.5	21.2	2800.
S	1	5	42	0	0.057	0.0	0.0	0.5	******	16.0	21.2	2900.
S	1	5	42	15	0.049	0.0	0.0	0.5	******	16.0	21.2	3000.
S	1	5	42	30	0.046	0.0	0.0	0.5	******	16.1	20.9	3150.
S	1	5	42	45	0.045	0.0	0.0	0.5	******	16.1	21.0	3350.
S	1	5	43	0	0.045	0.0	0.0	0.4	******	15.6	20.7	3500.
S	1	5	43	15	0.045	0.0	0.0	0.6	******	15.3	20.7	3650.
S	1	5	43	30	0.049	0.0	0.0	0.3	******	14.8	20.5	3800.
S	1	5	43	45	0.052	0.0	0.0	0.5	******	14.3	20.4	4000.
S	1	5	44	0	0.050	0.0	0.0	0.5	******	13.5	20.3	4100.
S	1	5	44	15	0.052	0.0	0.0	0.6	******	12.8	20.2	4250.
S	1	5	44	30	0.054	0.0	0.0	0.5	******	12.2	20.1	4350.
S	1	5	44	45	0.056	0.0	0.0	0.6	******	12.0	20.0	4500.
S	1	5	45	0	0.057	0.0	0.0	0.5	******	11.9	20.0	4600.
S	1	5	45	15	0.057	0.0	0.0	0.6	******	11.8	19.8	4750.
S	1	5	45	30	0.058	0.0	0.0	0.7	******	11.8	19.7	4850.
S	1	5	45	45	0.059	0.0	0.0	0.7	******	11.6	19.7	5000.
S	1	5	46	0	0.058	0.0	0.0	0.7	******	11.6	19.5	5100.
S	1	5	46	15	0.057	0.0	0.0	0.6	******	11.5	19.5	5250.
S	1	5	46	30	0.055	0.0	0.0	0.6	******	11.3	19.4	5350.
S	1	5	46	45	0.054	0.0	0.0	0.5	******	11.1	19.3	5500.
S	1	5	47	0	0.053	0.0	0.0	0.6	******	11.1	19.3	5600.
S	1	5	47	15	0.053	0.0	0.0	0.6	******	11.2	19.3	5750.
S	1	5	47	30	0.053	0.0	0.0	0.7	******	11.1	19.1	5850.
S	1	5	47	45	0.052	0.0	0.0	0.6	******	11.2	19.0	6000.
S	1	5	48	0	0.051	0.0	0.0	0.6	******	11.2	19.1	6100.
S	1	5	48	15	0.052	0.0	0.0	0.7	******	11.1	18.9	6200.
S	1	5	48	30	0.053	0.0	0.0	0.6	******	10.9	18.6	6300.
S	1	5	48	45	0.053	0.0	0.0	0.6	******	10.7	18.7	6400.
S	1	5	49	0	0.054	0.0	0.0	0.6	******	10.5	18.5	6500.
S	1	5	49	15	0.054	0.0	0.0	0.6	******	10.1	18.4	6600.
S	1	5	49	30	0.055	0.0	0.0	0.7	******	10.1	18.3	6700.
S	1	5	49	45	0.055	0.0	0.0	0.7	******	10.3	18.2	6800.
S	1	5	50	0	0.055	0.0	0.0	0.7	******	10.2	18.0	6900.
S	1	5	50	15	0.053	0.0	0.0	0.6	******	9.7	17.7	6950.
S	1	5	50	30	0.052	0.0	0.0	0.6	******	9.0	17.7	7000.
S	1	5	50	45	0.053	0.0	0.0	0.7	******	8.0	17.5	7100.
S	1	5	51	0	0.053	0.0	0.0	0.5	******	6.2	17.4	7200.
S	1	5	51	15	0.054	0.0	0.0	0.6	******	3.7	17.2	7300.

TULSA FLIGHT NUMBER 19 DATE: 9-17

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	5	51	30	0.054	0.0	0.0	0.5	******	1.4	17.2	7400.
S	1	5	51	45	0.053	0.0	0.0	0.6	******	-0.4	17.1	7500.
S	1	5	52	0	0.054	0.0	0.0	0.7	******	-1.4	16.9	7600.
S	1	5	52	15	0.054	0.0	0.0	0.5	******	-2.7	16.6	7750.
S	1	5	52	30	0.053	0.0	0.001	0.6	******	-4.1	16.6	7850.
S	1	5	52	45	0.053	0.0	0.001	0.6	******	-4.9	16.4	8000.
S	1	5	53	0	0.053	0.0	0.001	0.6	******	-4.8	16.3	8100.
S	1	5	53	15	0.050	0.0	0.001	0.5	******	-4.1	16.4	8200.
S	1	5	53	30	0.050	0.0	0.001	0.6	******	-3.3	16.0	8250.
S	1	5	53	45	0.049	0.0	0.001	0.5	******	-2.7	15.9	8350.
S	1	5	54	0	0.049	0.0	0.001	0.7	******	-2.1	15.9	8450.
S	1	5	54	15	0.048	0.0	0.0	0.5	******	-1.4	15.7	8500.
S	1	5	54	30	0.049	0.0	0.0	0.7	******	-0.9	15.7	8600.
S	1	5	54	45	0.049	0.0	0.0	0.7	******	-0.5	15.5	8650.
S	1	5	55	0	0.048	0.0	0.0	0.7	******	-0.3	15.4	8750.
S	1	5	55	15	0.048	0.0	0.0	0.6	******	0.0	15.3	8800.
S	1	5	55	30	0.049	0.0	0.0	0.6	******	0.2	14.9	8900.
S	1	5	55	45	0.049	0.0	0.0	0.6	******	0.5	15.0	8950.
S	1	5	56	0	0.048	0.0	0.0	0.6	******	0.8	14.9	9000.
S	1	5	56	15	0.049	0.0	0.0	0.6	******	0.9	14.5	9100.
S	1	5	56	30	0.049	0.0	0.0	0.5	******	1.0	14.0	9150.
S	1	5	56	45	0.047	0.0	0.0	0.5	******	1.3	14.2	9250.
S	1	5	57	0	0.046	0.0	0.0	0.5	******	1.6	14.2	9300.
S	1	5	57	15	0.046	0.0	0.0	0.5	******	1.8	13.9	9400.
S	1	5	57	30	0.046	0.0	0.0	0.6	******	2.0	13.7	9500.
S	1	5	57	45	0.045	0.0	0.0	0.5	******	2.5	13.5	9600.
S	1	5	58	0	0.046	0.0	0.0	0.6	******	3.4	13.1	9650.
S	1	5	58	15	0.043	0.0	0.0	0.6	******	4.2	13.2	9750.
S	1	5	58	30	0.044	0.0	0.0	0.5	******	4.6	12.9	9850.
S	1	5	58	45	0.042	0.0	0.0	0.7	******	5.6	12.6	9900.
S	1	5	59	0	0.042	0.0	0.0	0.6	******	8.5	12.5	10000.
	1	6	7	30	0.049	0.0	0.0	0.5	******	13.5	21.1	2500.
	1	6	7	45	0.049	0.0	0.0	0.5	******	16.5	21.3	2500.
	1	6	8	0	0.049	0.0	0.0	0.6	******	17.5	21.4	2500.
	1	6	8	15	0.048	0.0	0.0	0.5	******	17.5	21.7	2500.
	1	6	8	30	0.046	0.0	0.0	0.7	******	17.5	21.8	2500.
	1	6	8	45	0.047	0.0	0.0	0.6	******	17.5	21.8	2500.
	1	6	9	0	0.047	0.0	0.0	0.5	******	17.4	22.0	2500.
	1	6	9	15	0.051	0.0	0.0	0.5	******	17.4	22.2	2500.
	1	6	9	30	0.049	0.0	0.0	0.6	******	17.3	22.2	2500.
	1	6	9	45	0.049	0.0	0.0	0.6	******	17.3	22.4	2500.
	1	6	10	0	0.050	0.0	0.0	0.6	******	17.5	22.4	2500.
	1	6	10	15	0.061	0.0	0.0	0.8	******	17.9	22.5	2500.
	1	6	10	30	0.069	0.0	0.0	0.6	******	18.0	22.4	2500.
	1	6	10	45	0.066	0.0	0.0	0.6	******	17.8	22.7	2500.
	1	6	11	0	0.066	0.0	0.0	0.4	******	17.4	22.6	2500.
	1	6	11	15	0.062	0.0	0.0	0.5	******	17.1	22.7	2500.
	1	6	11	30	0.062	0.0	0.0	0.7	******	17.2	22.6	2500.
	1	6	11	45	0.067	0.0	0.0	0.7	******	17.6	22.5	2500.
	1	6	12	0	0.068	0.0	0.0	0.7	******	18.1	22.7	2500.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	6	12	15	0.078	0.0	0.0	0.6	******	18.3	22.8	2500.
1	6	12	30	0.074	0.0	0.0	0.8	******	18.6	22.6	2500.
1	6	12	45	0.091	0.0	0.0	0.7	******	18.9	22.8	2500.
1	6	13	0	0.097	0.0	0.0	0.8	******	18.9	22.8	2500.
1	6	13	15	0.097	0.0	0.0	0.9	******	18.9	22.8	2500.
1	6	13	30	0.094	0.0	0.0	0.7	******	18.8	22.7	2500.
1	6	13	45	0.093	0.0	0.0	0.9	******	18.6	22.8	2500.
1	6	14	0	0.093	0.0	0.0	0.7	******	18.6	22.6	2500.
1	6	14	15	0.091	0.0	0.0	0.8	******	18.6	22.7	2500.
1	6	14	30	0.089	0.0	0.0	0.8	******	18.6	22.8	2500.
1	6	14	45	0.086	0.0	0.0	0.6	******	18.4	22.6	2500.
1	6	15	0	0.084	0.0	0.0	0.8	******	18.2	22.6	2500.
1	6	15	15	0.084	0.0	0.0	0.5	******	18.1	22.9	2500.
1	6	15	30	0.077	0.0	0.0	0.5	******	17.9	22.8	2500.
1	6	15	45	0.074	0.0	0.0	0.6	******	17.8	22.9	2500.
1	6	16	0	0.079	0.0	0.0	0.8	******	17.9	22.8	2500.
1	6	16	15	0.080	0.0	0.0	0.7	******	18.2	22.8	2500.
1	6	16	30	0.079	0.0	0.0	0.7	******	18.6	22.9	2500.
1	6	16	45	0.079	0.0	0.0	0.8	******	18.9	22.7	2500.
1	6	17	0	0.079	0.0	0.0	0.8	******	19.0	22.7	2500.
1	6	17	15	0.086	0.0	0.0	0.8	******	18.9	22.7	2500.
1	6	17	30	0.086	0.0	0.0	0.9	******	18.7	22.7	2500.
1	6	17	45	0.086	0.0	0.0	0.8	******	18.7	22.6	2500.
1	6	18	0	0.084	0.0	0.0	0.8	******	18.8	22.8	2500.
1	6	18	15	0.083	0.0	0.0	0.7	******	18.8	22.7	2500.
1	6	18	30	0.081	0.0	0.0	0.9	******	18.8	22.6	2500.
1	6	18	45	0.085	0.0	0.0	1.0	******	18.6	22.7	2500.
1	6	19	0	0.085	0.0	0.0	0.8	******	18.4	22.6	2500.
1	6	19	15	0.075	0.0	0.0	0.7	******	18.5	22.6	2500.
1	6	19	30	0.070	0.0	0.0	0.6	******	18.8	22.7	2500.
1	6	19	45	0.069	0.0	0.0	0.7	******	19.0	22.7	2500.
1	6	20	0	0.069	0.0	0.0	0.7	******	18.9	22.7	2500.
1	6	20	15	0.070	0.0	0.0	0.7	******	18.7	22.7	2500.
1	6	20	30	0.071	0.0	0.0	0.7	******	18.5	22.7	2500.
1	6	20	45	0.068	0.0	0.0	0.8	******	18.5	22.7	2500.
1	6	21	0	0.069	0.0	0.0	0.7	******	18.4	22.7	2500.
1	6	21	15	0.070	0.0	0.0	0.7	******	18.1	22.7	2500.
1	6	21	30	0.069	0.0	0.0	0.7	******	17.7	22.8	2500.
1	6	21	45	0.069	0.0	0.0	0.6	******	17.5	22.6	2500.
2	6	22	0	0.069	0.0	0.0	0.6	******	17.7	22.6	2500.
2	6	22	15	0.067	0.0	0.0	0.5	******	17.8	22.7	2500.
2	6	22	30	0.066	0.0	0.0	0.6	******	17.9	22.8	2500.
2	6	22	45	0.067	0.0	0.0	0.6	******	18.0	22.6	2500.
2	6	23	0	0.067	0.0	0.0	0.7	******	18.1	22.8	2500.
2	6	23	15	0.068	0.0	0.0	0.7	******	18.1	22.9	2500.
2	6	23	30	0.070	0.0	0.0	0.6	******	18.2	22.7	2500.
2	6	24	45	0.063	0.0	0.0	0.8	******	18.5	22.7	2500.
3	6	25	0	0.065	0.0	0.0	0.7	******	18.6	22.7	2500.
3	6	25	15	0.065	0.0	0.0	0.9	******	18.5	22.6	2500.
3	6	25	30	0.065	0.0	0.0	0.8	******	18.5	22.4	2500.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	6	25	45	0.070	0.0	0.0	0.6	******	18.4	22.6	2500.
3	6	26	0	0.071	0.0	0.0	0.6	******	18.2	22.7	2500.
3	6	26	15	0.072	0.0	0.0	0.5	******	18.3	22.6	2500.
3	6	26	30	0.072	0.0	0.0	0.6	******	18.4	22.5	2500.
3	6	26	45	0.074	0.0	0.0	0.8	******	18.4	22.6	2500.
3	6	27	0	0.075	0.0	0.0	0.5	******	18.1	22.8	2500.
3	6	27	15	0.076	0.0	0.0	0.7	******	18.0	22.6	2500.
3	6	27	30	0.077	0.0	0.0	0.7	******	18.2	22.8	2500.
3	6	27	45	0.081	0.0	0.0	0.9	******	18.4	22.6	2500.
3	6	28	0	0.082	0.0	0.0	0.8	******	18.4	22.7	2500.
3	6	28	15	0.080	0.0	0.0	0.9	******	18.4	22.7	2500.
3	6	28	30	0.081	0.0	0.0	0.7	******	18.3	22.7	2500.
3	6	28	45	0.079	0.0	0.0	0.7	******	18.4	22.7	2500.
3	6	29	0	0.078	0.0	0.0	0.8	******	18.6	22.7	2500.
3	6	29	15	0.080	0.0	0.0	0.7	******	18.7	22.6	2500.
3	6	29	30	0.084	0.0	0.0	0.7	******	18.7	22.6	2500.
3	6	29	45	0.085	0.0	0.0	0.6	******	18.8	22.7	2500.
3	6	30	0	0.087	0.0	0.0	0.7	******	18.8	22.7	2500.
3	6	30	15	0.090	0.0	0.0	0.8	******	18.8	22.7	2500.
3	6	30	30	0.092	0.0	0.0	0.8	******	18.7	22.5	2500.
3	6	30	45	0.091	0.0	0.0	0.9	******	18.7	22.7	2500.
3	6	31	0	0.093	0.0	0.0	0.9	******	18.5	22.7	2500.
3	6	31	15	0.094	0.0	0.0	0.8	******	18.6	22.4	2500.
3	6	31	30	0.091	0.0	0.0	0.8	******	18.6	22.4	2500.
3	6	31	45	0.089	0.0	0.0	0.8	******	18.4	22.6	2500.
3	6	32	0	0.091	0.0	0.0	0.6	******	17.9	22.6	2500.
3	6	32	15	0.076	0.0	0.0	0.6	******	17.4	22.6	2500.
3	6	32	30	0.068	0.0	0.0	0.4	******	17.2	22.8	2500.
3	6	32	45	0.055	0.0	0.0	0.5	******	17.2	22.6	2500.
3	6	33	0	0.050	0.0	0.0	0.4	******	17.4	22.7	2500.
3	6	33	15	0.048	0.0	0.0	0.4	******	17.4	22.9	2500.
3	6	33	30	0.047	0.0	0.0	0.5	******	17.4	22.7	2500.
3	6	33	45	0.048	0.0	0.0	0.5	******	17.4	22.8	2500.
3	6	34	0	0.047	0.0	0.0	0.6	******	17.3	22.7	2500.
3	6	34	15	0.048	0.0	0.0	0.5	******	17.2	22.8	2500.
3	6	34	30	0.048	0.0	0.0	0.5	******	17.1	22.9	2500.
3	6	34	45	0.049	0.0	0.0	0.5	******	17.1	22.9	2500.
3	6	35	0	0.049	0.0	0.0	0.4	******	17.0	22.9	2500.
3	6	35	15	0.049	0.0	0.0	0.5	******	17.2	22.9	2500.
3	6	35	30	0.049	0.0	0.0	0.4	******	17.3	23.0	2500.
3	6	35	45	0.049	0.0	0.0	0.5	******	17.4	23.1	2500.
3	6	36	0	0.048	0.0	0.0	0.5	******	17.3	23.2	2500.
3	6	36	15	0.046	0.0	0.0	0.5	******	17.3	23.2	2500.
3	6	36	30	0.046	0.0	0.0	0.4	******	17.4	23.2	2500.
3	6	36	45	0.045	0.0	0.0	0.5	******	17.5	23.0	2500.
3	6	37	0	0.048	0.0	0.0	0.4	******	17.4	23.1	2500.
3	6	37	15	0.049	0.0	0.0	0.3	******	17.3	23.3	2500.
3	6	37	30	0.050	0.0	0.0	0.4	******	17.3	23.3	2500.
3	6	37	45	0.050	0.0	0.0	0.6	******	17.2	23.4	2500.
3	6	38	0	0.049	0.0	0.0	0.5	******	17.1	23.3	2500.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	6	38	15	0.049	0.0	0.0	0.4	******	17.0	23.4	2500.
3	6	38	30	0.049	0.0	0.0	0.5	******	17.0	23.4	2500.
3	6	38	45	0.050	0.0	0.0	0.5	******	17.0	23.3	2500.
3	6	39	0	0.049	0.0	0.0	0.5	******	16.8	23.2	2500.
3	6	39	15	0.050	0.0	0.0	0.5	******	16.7	23.5	2500.
3	6	39	30	0.049	0.0	0.0	0.4	******	16.6	23.4	2500.
3	6	39	45	0.050	0.0	0.0	0.4	******	16.5	23.3	2500.
3	6	40	0	0.050	0.0	0.0	0.4	******	16.2	23.3	2500.
3	6	40	15	0.050	0.0	0.0	0.4	******	15.9	23.5	2500.
3	6	40	30	0.049	0.0	0.0	0.4	******	16.0	23.6	2500.
3	6	40	45	0.049	0.0	0.0	0.5	******	16.2	23.6	2500.
3	6	41	0	0.048	0.0	0.0	0.3	******	16.5	23.8	2500.
3	6	41	15	0.050	0.0	0.0	0.5	******	16.6	23.8	2500.
4	6	41	30	0.050	0.0	0.0	0.5	******	16.7	23.8	2500.
4	6	41	45	0.049	0.0	0.0	0.4	******	16.7	23.6	2500.
4	6	42	0	0.049	0.0	0.0	0.4	******	16.6	23.9	2500.
4	6	42	15	0.049	0.0	0.0	0.3	******	16.5	23.7	2500.
4	6	42	30	0.049	0.0	0.0	0.4	******	16.6	23.7	2500.
4	6	42	45	0.049	0.0	0.0	0.4	******	16.5	23.9	2500.
4	6	43	0	0.049	0.0	0.0	0.5	******	16.3	23.6	2500.
4	6	43	15	0.049	0.0	0.0	0.5	******	16.2	23.8	2500.
4	6	43	30	0.050	0.0	0.0	0.6	******	16.3	23.8	2500.
4	6	43	45	0.049	0.0	0.0	0.5	******	16.5	23.9	2500.
5	6	44	0	0.049	0.0	0.0	0.5	******	16.6	23.9	2500.
5	6	44	15	0.049	0.0	0.0	0.5	******	16.6	23.9	2500.
5	6	44	30	0.049	0.0	0.0	0.5	******	16.7	24.1	2500.
5	6	44	45	0.050	0.0	0.0	0.4	******	16.8	24.1	2500.
5	6	45	0	0.049	0.0	0.0	0.5	******	16.8	23.9	2500.
5	6	45	15	0.049	0.0	0.0	0.4	******	16.8	24.0	2500.
5	6	45	30	0.048	0.0	0.0	0.5	******	16.8	24.0	2500.
5	6	45	45	0.048	0.0	0.0	0.4	******	17.0	23.8	2500.
5	6	46	0	0.048	0.0	0.0	0.5	******	17.0	24.0	2500.
5	6	46	15	0.049	0.0	0.0	0.5	******	17.1	23.8	2500.
5	6	46	30	0.049	0.0	0.0	0.5	******	17.2	23.9	2500.
5	6	46	45	0.049	0.0	0.0	0.5	******	17.6	23.9	2500.
5	6	47	0	0.049	0.0	0.0	0.4	******	17.6	23.8	2500.
5	6	47	15	0.046	0.0	0.0	0.6	******	17.5	23.9	2500.
5	6	47	30	0.045	0.0	0.0	0.6	******	17.3	23.7	2500.
5	6	47	45	0.044	0.0	0.0	0.6	******	17.4	23.9	2500.
5	6	48	0	0.045	0.0	0.0	0.4	******	17.5	23.6	2500.
5	6	48	15	0.046	0.0	0.0	0.5	******	17.4	23.4	2500.
5	6	48	30	0.046	0.0	0.0	0.6	******	17.3	23.7	2500.
5	6	48	45	0.047	0.0	0.0	0.5	******	17.0	23.6	2500.
5	6	49	0	0.048	0.0	0.0	0.4	******	16.7	23.6	2500.
5	6	49	15	0.048	0.0	0.0	0.5	******	16.5	23.5	2500.
5	6	49	30	0.049	0.0	0.0	0.4	******	16.6	23.4	2500.
5	6	49	45	0.048	0.0	0.0	0.5	******	16.7	23.4	2500.
5	6	50	0	0.050	0.0	0.0	0.4	******	16.8	23.6	2500.
5	6	50	15	0.049	0.0	0.0	0.4	******	16.8	23.5	2500.
5	6	50	30	0.049	0.0	0.0	0.4	******	16.8	23.4	2500.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	6	50	45	0.048	0.0	0.0	0.5	******	17.0	23.3	2500.
5	6	51	0	0.049	0.0	0.0	0.5	******	17.1	23.5	2500.
5	6	51	15	0.050	0.0	0.0	0.6	******	17.3	23.4	2500.
5	6	51	30	0.059	0.0	0.0	0.6	******	17.5	23.5	2500.
5	6	51	45	0.065	0.0	0.0	0.7	******	17.6	23.1	2500.
5	6	52	0	0.071	0.0	0.0	0.6	******	17.5	23.5	2500.
5	6	52	15	0.075	0.0	0.0	0.6	******	17.3	23.0	2500.
5	6	52	30	0.067	0.0	0.0	0.4	******	17.2	23.3	2500.
5	6	52	45	0.059	0.0	0.0	0.6	******	17.3	23.0	2500.
5	6	53	0	0.058	0.0	0.0	0.6	******	17.5	23.0	2500.
5	6	53	15	0.061	0.0	0.0	0.8	******	17.9	23.0	2500.
5	6	53	30	0.072	0.0	0.0	0.7	******	18.1	23.2	2500.
5	6	53	45	0.077	0.0	0.0	0.7	******	18.4	23.1	2500.
5	6	54	0	0.084	0.0	0.0	0.7	******	18.4	23.1	2500.
5	6	54	15	0.085	0.0	0.0	0.7	******	18.1	22.9	2500.
5	6	54	30	0.085	0.0	0.0	0.7	******	18.0	23.1	2500.
5	6	54	45	0.083	0.0	0.0	0.6	******	17.9	22.9	2500.
5	6	55	0	0.081	0.0	0.0	0.7	******	18.1	22.7	2500.
5	6	55	15	0.082	0.0	0.0	0.6	******	18.2	23.0	2500.
5	6	55	30	0.080	0.0	0.0	0.7	******	18.1	23.0	2500.
5	6	55	45	0.078	0.0	0.0	0.8	******	18.1	22.8	2500.
5	6	56	0	0.076	0.0	0.0	0.6	******	18.2	22.8	2500.
5	6	56	15	0.075	0.0	0.0	0.6	******	18.3	22.9	2500.
5	6	56	30	0.072	0.0	0.0	0.7	******	18.2	22.8	2500.
5	6	56	45	0.073	0.0	0.0	0.7	******	18.1	22.9	2500.
5	6	57	0	0.072	0.0	0.0	0.6	******	18.0	22.9	2500.
5	6	57	15	0.081	0.0	0.0	0.8	******	18.2	22.7	2500.
6	6	57	30	0.080	0.0	0.0	0.8	******	18.4	22.5	2500.
6	6	57	45	0.082	0.0	0.0	0.9	******	18.6	22.9	2500.
6	6	58	0	0.080	0.0	0.0	1.0	******	18.5	22.7	2500.
6	6	58	15	0.085	0.0	0.0	0.9	******	18.5	22.6	2500.
6	6	58	30	0.078	0.0	0.0	0.8	******	18.6	22.5	2500.
6	6	58	45	0.084	0.0	0.0	1.0	******	18.7	22.6	2500.
6	6	59	0	0.084	0.0	0.0	0.8	******	18.8	22.8	2500.
6	6	59	15	0.078	0.0	0.0	0.7	******	18.7	22.8	2500.
6	6	59	30	0.078	0.0	0.0	1.0	******	18.6	22.8	2500.
6	6	59	45	0.080	0.0	0.0	0.9	******	18.5	22.5	2500.
7	7	0	0	0.078	0.0	0.0	1.0	******	18.6	22.5	2500.
7	7	0	15	0.082	0.0	0.0	1.0	******	18.7	22.5	2500.
7	7	0	30	0.086	0.0	0.0	0.9	******	18.8	22.7	2500.
7	7	0	45	0.086	0.0	0.0	0.7	******	18.6	22.3	2500.
7	7	1	0	0.080	0.0	0.0	0.7	******	18.4	22.7	2500.
7	7	1	15	0.080	0.0	0.0	0.6	******	18.3	22.6	2500.
7	7	1	30	0.080	0.0	0.0	0.8	******	18.3	22.5	2500.
7	7	1	45	0.077	0.0	0.0	0.7	******	18.1	22.5	2500.
7	7	2	0	0.073	0.0	0.0	0.8	******	17.9	22.6	2500.
7	7	2	15	0.071	0.0	0.0	0.5	******	17.6	22.5	2500.
7	7	2	30	0.067	0.0	0.0	0.5	******	17.4	22.5	2500.
7	7	2	45	0.060	0.0	0.0	0.5	******	17.1	22.8	2500.
7	7	3	0	0.053	0.0	0.0	0.5	******	17.1	22.7	2500.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
7	7	3	15	0.061	0.0	0.0	0.6	******	17.2	22.8	2500.
7	7	3	30	0.069	0.0	0.0	0.7	******	17.6	22.7	2500.
7	7	3	45	0.076	0.0	0.0	0.6	******	18.0	22.7	2500.
7	7	4	0	0.076	0.0	0.0	0.6	******	18.1	22.9	2500.
7	7	4	15	0.077	0.0	0.0	0.5	******	17.9	22.7	2500.
7	7	4	30	0.067	0.0	0.0	0.4	******	17.5	22.8	2500.
7	7	4	45	0.066	0.0	0.0	0.6	******	17.1	22.8	2500.
7	7	5	0	0.057	0.0	0.0	0.7	******	16.7	22.8	2500.
7	7	5	15	0.050	0.0	0.0	0.6	******	16.4	22.7	2500.
7	7	5	30	0.047	0.0	0.0	0.7	******	16.1	22.9	2500.
7	7	5	45	0.048	0.0	0.0	0.7	******	16.0	23.0	2500.
7	7	6	0	0.048	0.0	0.0	0.7	******	15.9	23.1	2500.
7	7	6	15	0.049	0.0	0.0	0.6	******	15.9	23.0	2500.
7	7	6	30	0.048	0.0	0.0	0.5	******	16.1	23.2	2500.
7	7	6	45	0.048	0.0	0.0	0.4	******	16.3	23.2	2500.
7	7	7	0	0.048	0.0	0.0	0.5	******	16.4	23.2	2500.
7	7	7	15	0.048	0.0	0.0	0.5	******	16.6	23.2	2500.
7	7	7	30	0.048	0.0	0.0	0.6	******	16.6	23.3	2500.
7	7	7	45	0.049	0.0	0.0	0.6	******	16.7	23.4	2500.
7	7	8	0	0.049	0.0	0.0	0.6	******	16.8	23.3	2500.
7	7	8	15	0.049	0.0	0.0	0.5	******	16.9	23.4	2500.
7	7	8	30	0.048	0.0	0.0	0.6	******	17.2	23.4	2500.
7	7	8	45	0.047	0.0	0.0	0.6	******	17.3	23.4	2500.
7	7	9	0	0.048	0.0	0.0	0.6	******	17.2	23.4	2500.
7	7	9	15	0.049	0.0	0.0	0.5	******	17.2	23.4	2500.
7	7	9	30	0.050	0.0	0.0	0.5	******	17.2	23.4	2500.
7	7	9	45	0.050	0.0	0.0	0.5	******	17.0	23.4	2500.
7	7	10	0	0.049	0.0	0.0	0.4	******	16.7	23.4	2500.
7	7	10	15	0.048	0.0	0.0	0.5	******	16.5	23.6	2500.
7	7	10	30	0.048	0.0	0.0	0.7	******	16.4	23.6	2500.
7	7	10	45	0.050	0.0	0.0	0.5	******	16.2	23.3	2500.
7	7	11	0	0.050	0.0	0.0	0.5	******	16.3	23.6	2500.
7	7	11	15	0.050	0.0	0.0	0.5	******	16.7	23.6	2500.
7	7	11	30	0.049	0.0	0.0	0.5	******	16.9	23.6	2500.
7	7	11	45	0.049	0.0	0.0	0.5	******	16.8	23.7	2500.
7	7	12	0	0.049	0.0	0.0	0.5	******	16.6	23.9	2500.
7	7	12	15	0.049	0.0	0.0	0.6	******	16.3	23.7	2500.
7	7	12	30	0.048	0.0	0.0	0.6	******	16.3	23.7	2500.
7	7	12	45	0.050	0.0	0.0	0.7	******	16.3	23.6	2500.
7	7	13	0	0.050	0.0	0.0	0.4	******	16.4	23.8	2500.
7	7	13	15	0.050	0.0	0.0	0.6	******	16.4	23.8	2500.
7	7	13	30	0.050	0.0	0.0	0.5	******	16.6	23.8	2500.
7	7	13	45	0.051	0.0	0.0	0.5	******	16.8	23.9	2500.
7	7	14	0	0.050	0.0	0.0	0.5	******	17.1	23.9	2500.
7	7	14	15	0.052	0.0	0.0	0.5	******	17.3	23.9	2500.
7	7	14	30	0.052	0.0	0.0	0.5	******	17.3	23.9	2500.
7	7	14	45	0.051	0.0	0.0	0.5	******	17.1	24.0	2500.
7	7	15	0	0.051	0.0	0.0	0.6	******	17.0	24.1	2500.
7	7	15	15	0.052	0.0	0.0	0.6	******	16.9	23.8	2500.
7	7	15	30	0.051	0.0	0.0	0.3	******	16.8	24.2	2500.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
	7	7	15	0.052	0.0	0.0	0.7	******	16.7	24.0	2500.
	7	7	16	0.052	0.0	0.0	0.7	******	16.7	24.2	2500.
	7	7	16	0.053	0.0	0.0	0.8	******	16.9	24.2	2500.
	7	7	16	0.051	0.0	0.0	0.6	******	17.1	24.2	2500.
	7	7	16	0.052	0.0	0.0	0.8	******	17.1	24.3	2500.
	7	7	17	0.053	0.0	0.0	0.5	******	16.7	24.2	2500.
	7	7	17	0.051	0.0	0.0	0.6	******	16.6	24.0	2500.
	7	7	17	0.052	0.0	0.0	0.7	******	16.5	24.3	2500.
	7	7	17	0.053	0.0	0.0	0.6	******	16.5	24.1	2500.
S	2	7	27	0.051	0.0	0.0	0.6	******	15.9	24.2	3000.
S	2	7	27	0.054	0.0	0.0	0.5	******	14.5	23.7	3250.
S	2	7	28	0.055	0.0	0.0	0.6	******	13.7	23.5	3500.
S	2	7	28	0.056	0.0	0.0	0.5	******	13.3	23.3	3750.
S	2	7	28	0.056	0.0	0.0	0.6	******	12.9	23.0	4000.
S	2	7	28	0.058	0.0	0.0	0.5	******	12.4	23.1	4150.
S	2	7	29	0.059	0.0	0.0	0.7	******	12.0	23.0	4250.
S	2	7	29	0.059	0.0	0.0	0.7	******	11.8	23.0	4300.
S	2	7	29	0.059	0.0	0.0	0.7	******	11.8	22.8	4400.
S	2	7	29	0.060	0.0	0.0	0.6	******	11.9	23.0	4500.
S	2	7	30	0.060	0.0	0.0	0.5	******	11.8	22.7	4600.
S	2	7	30	0.059	0.0	0.0	0.7	******	11.7	22.6	4700.
S	2	7	30	0.059	0.0	0.0	0.6	******	11.7	22.0	4800.
S	2	7	30	0.061	0.0	0.0	0.8	******	11.8	21.6	4900.
S	2	7	31	0.063	0.0	0.0	0.7	******	11.8	21.7	5000.
S	2	7	31	0.063	0.0	0.0	0.7	******	11.5	21.2	5100.
S	2	7	31	0.055	0.0	0.0	0.6	******	11.3	20.8	5200.
S	2	7	31	0.055	0.0	0.0	0.7	******	11.2	20.7	5300.
S	2	7	32	0.054	0.0	0.0	0.6	******	11.3	20.6	5400.
S	2	7	32	0.054	0.0	0.0	0.7	******	11.1	20.2	5500.
S	2	7	32	0.053	0.0	0.0	0.7	******	11.1	20.1	5600.
S	2	7	32	0.052	0.0	0.0	0.5	******	10.9	20.0	5700.
S	2	7	33	0.052	0.0	0.0	0.7	******	10.9	19.5	5800.
S	2	7	33	0.051	0.0	0.0	0.7	******	10.7	19.1	5900.
S	2	7	33	0.051	0.0	0.0	0.6	******	10.6	19.0	6000.
S	2	7	33	0.052	0.0	0.0	0.7	******	10.4	18.9	6100.
S	2	7	34	0.052	0.0	0.0	0.7	******	10.3	18.8	6200.
S	2	7	34	0.051	0.002	0.004	0.7	******	10.3	18.4	6350.
S	2	7	34	0.050	0.0	0.0	0.7	******	10.3	18.2	6450.
S	2	7	34	0.049	0.0	0.0	0.7	******	10.0	18.2	6550.
S	2	7	35	0.049	0.0	0.0	0.5	******	9.3	17.9	6700.
S	2	7	35	0.049	0.0	0.0	0.6	******	7.5	17.8	6850.
S	2	7	35	0.051	0.0	0.0	0.5	******	5.1	17.4	7000.
S	2	7	35	0.053	0.0	0.0	0.4	******	2.6	17.3	7150.
S	2	7	36	0.055	0.0	0.0	0.5	******	0.5	17.3	7300.
S	2	7	36	0.055	0.0	0.0	0.5	******	-1.0	17.2	7400.
S	2	7	36	0.054	0.0	0.0	0.6	******	-1.9	16.8	7500.
S	2	7	36	0.054	0.0	0.0	0.6	******	-2.1	16.7	7600.
S	2	7	37	0.055	0.0	0.0	0.5	******	-2.3	16.7	7700.
S	2	7	37	0.055	0.0	0.0	0.7	******	-2.7	16.5	7800.
S	2	7	37	0.054	0.0	0.0	0.5	******	-3.5	16.4	7900.

TULSA FLIGHT NUMBER 19 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 2	7	37	45	0.054	0.0	0.0	0.5	******	-3.9	16.2	8000.
S 2	7	38	0	0.054	0.0	0.0	0.7	******	-4.2	15.8	8100.
S 2	7	38	15	0.053	0.0	0.0	0.5	******	-4.1	15.9	8200.
S 2	7	38	30	0.052	0.0	0.0	0.6	******	-3.8	15.7	8300.
S 2	7	38	45	0.050	0.0	0.0	0.6	******	-3.5	15.4	8400.
S 2	7	39	0	0.049	0.0	0.0	0.7	******	-3.2	15.5	8500.
S 2	7	39	15	0.048	0.0	0.0	0.4	******	-2.8	15.3	8600.
S 2	7	39	30	0.049	0.0	0.0	0.7	******	-2.2	15.2	8700.
S 2	7	39	45	0.049	0.0	0.0	0.7	******	-1.5	15.0	8800.
S 2	7	40	0	0.049	0.0	0.0	0.5	******	-0.8	15.0	8900.
S 2	7	40	15	0.049	0.0	0.0	0.6	******	-0.1	14.5	9000.
S 2	7	40	30	0.049	0.0	0.0	0.6	******	0.2	14.6	9100.
S 2	7	40	45	0.049	0.0	0.0	0.6	******	0.4	14.4	9250.
S 2	7	41	0	0.048	0.0	0.0	0.6	******	0.7	14.3	9350.
S 2	7	41	15	0.048	0.0	0.0	0.5	******	0.9	14.1	9500.
S 2	7	41	30	0.046	0.0	0.0	0.7	******	1.0	13.9	9600.
S 2	7	41	45	0.046	0.0	0.0	0.6	******	0.9	13.6	9750.
S 2	7	42	0	0.046	0.0	0.0	0.7	******	2.3	13.5	9900.
S 2	7	42	15	0.046	0.0	0.0	0.5	******	6.9	13.1	10000.

TULSA FLIGHT NUMBER 20 DATE: 9-17-1977

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	37	15	0.067	0.0	0.001	0.7	******	19.5	22.5	2500.
1	12	37	30	0.068	0.0	0.0	0.7	******	19.4	22.5	2500.
1	12	37	45	0.067	0.0	0.0	0.8	******	19.5	22.6	2500.
1	12	38	0	0.067	0.0	0.0	0.6	******	19.7	22.7	2500.
1	12	38	15	0.066	0.0	0.0	0.7	******	19.6	22.9	2500.
1	12	38	30	0.066	0.0	0.0	0.7	******	19.4	23.0	2500.
1	12	38	45	0.064	0.0	0.0	0.7	******	19.1	23.0	2500.
1	12	39	0	0.061	0.0	0.0	0.8	******	19.0	23.3	2500.
1	12	39	15	0.061	0.0	0.0	0.7	******	19.1	23.2	2500.
1	12	39	30	0.060	0.0	0.0	0.5	******	19.2	23.2	2500.
1	12	39	45	0.060	0.0	0.0	0.7	******	19.3	23.4	2500.
1	12	40	0	0.061	0.0	0.0	0.6	******	19.5	23.5	2500.
1	12	40	15	0.061	0.0	0.0	0.7	******	19.5	23.5	2500.
1	12	40	30	0.060	0.0	0.0	0.7	******	19.4	23.6	2500.
1	12	40	45	0.060	0.0	0.0	0.8	******	19.2	23.4	2500.
1	12	41	0	0.060	0.0	0.0	0.8	******	19.3	23.7	2500.
1	12	41	15	0.059	0.0	0.0	0.6	******	19.5	23.4	2500.
1	12	41	30	0.059	0.0	0.0	0.7	******	19.8	23.7	2500.
1	12	41	45	0.058	0.0	0.0	0.7	******	20.1	23.6	2500.
1	12	42	0	0.058	0.0	0.0	0.7	******	20.2	23.5	2600.
1	12	42	15	0.058	0.0	0.0	0.6	******	20.2	23.6	2700.
1	12	42	30	0.058	0.0	0.0	0.7	******	20.2	23.7	2800.
1	12	42	45	0.060	0.0	0.0	0.5	******	20.0	23.6	2900.
1	12	43	0	0.060	0.0	0.0	0.7	******	19.8	23.7	3000.
1	12	43	15	0.059	0.0	0.0	0.6	******	19.7	23.3	3000.
1	12	43	30	0.059	0.0	0.0	0.7	******	19.7	23.7	3000.
1	12	43	45	0.058	0.0	0.0	0.7	******	19.9	23.5	3000.
1	12	44	0	0.058	0.0	0.0	0.6	******	20.0	23.7	3000.
1	12	44	15	0.058	0.0	0.0	0.7	******	19.8	23.6	3000.
1	12	44	30	0.057	0.0	0.0	0.7	******	19.7	23.7	3000.
1	12	44	45	0.058	0.0	0.0	0.6	******	19.5	23.2	3000.
1	12	45	0	0.058	0.0	0.0	0.7	******	19.6	23.7	3000.
1	12	45	15	0.058	0.0	0.0	0.6	******	19.7	23.8	3000.
1	12	45	30	0.059	0.0	0.0	0.5	******	19.5	23.9	3000.
1	12	45	45	0.060	0.0	0.0	0.6	******	19.0	23.7	3000.
1	12	46	0	0.060	0.0	0.0	0.5	******	18.8	24.1	3000.
1	12	46	15	0.060	0.0	0.0	0.5	******	18.8	24.0	3000.
1	12	46	30	0.061	0.0	0.0	0.7	******	18.8	24.1	3000.
1	12	46	45	0.061	0.0	0.0	0.7	******	18.6	24.1	3000.
1	12	47	0	0.061	0.0	0.0	0.6	******	18.3	24.2	3000.
1	12	47	15	0.062	0.0	0.0	0.5	******	18.3	24.2	3000.
1	12	47	30	0.062	0.0	0.0	0.6	******	18.5	24.3	3000.
1	12	47	45	0.062	0.0	0.0	0.7	******	18.7	24.1	3000.
1	12	48	0	0.063	0.0	0.0	0.7	******	18.7	24.2	3000.
1	12	48	15	0.063	0.0	0.0	0.7	******	18.8	24.0	3000.
1	12	48	30	0.062	0.0	0.0	0.5	******	18.9	24.2	3000.
1	12	48	45	0.062	0.0	0.0	0.5	******	19.0	24.0	3000.
1	12	49	0	0.062	0.0	0.0	0.5	******	19.1	24.2	3000.
1	12	49	15	0.062	0.0	0.0	0.7	******	19.2	24.2	3000.
1	12	49	30	0.062	0.0	0.0	0.7	******	19.0	24.1	3000.

TULSA FLIGHT NUMBER 20 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	12	49	45	0.063	0.0	0.0	0.7	******	18.9	24.3	3000.
1	12	50	0	0.063	0.0	0.0	0.7	******	18.8	24.3	3000.
1	12	50	15	0.064	0.0	0.0	0.6	******	18.9	24.7	3000.
1	12	50	30	0.064	0.0	0.0	0.7	******	19.1	24.3	3000.
1	12	50	45	0.064	0.0	0.0	0.7	******	19.2	24.4	3000.
1	12	51	0	0.064	0.0	0.0	0.7	******	19.1	24.4	3000.
1	12	51	15	0.065	0.0	0.0	0.7	******	18.9	24.4	3000.
1	12	51	30	0.065	0.0	0.0	0.6	******	19.1	24.5	3000.
1	12	51	45	0.063	0.0	0.0	0.6	******	19.4	24.3	3000.
1	12	52	0	0.064	0.0	0.0	0.6	******	19.3	24.7	3000.
1	12	52	15	0.065	0.0	0.0	0.7	******	19.2	24.6	3000.
1	12	52	30	0.065	0.0	0.0	0.6	******	19.0	24.7	3000.
1	12	52	45	0.068	0.0	0.0	0.6	******	18.9	24.7	3000.
1	12	53	0	0.068	0.0	0.0	0.7	******	18.8	24.4	3000.
1	12	53	15	0.068	0.0	0.0	0.6	******	18.7	24.3	3000.
1	12	53	30	0.066	0.0	0.0	0.7	******	18.6	24.1	3000.
1	12	53	45	0.066	0.0	0.0	0.7	******	18.7	24.3	3000.
1	12	54	0	0.064	0.0	0.0	0.6	******	19.1	24.0	3000.
1	12	54	15	0.063	0.0	0.0	0.7	******	19.3	24.0	3000.
1	12	54	30	0.063	0.0	0.0	0.7	******	19.1	24.0	3000.
1	12	54	45	0.062	0.0	0.0	0.7	******	19.0	23.6	3000.
1	12	55	0	0.062	0.0	0.0	0.6	******	18.9	23.8	3000.
1	12	55	15	0.063	0.0	0.0	0.6	******	19.0	23.8	3000.
1	12	55	30	0.064	0.0	0.0	0.7	******	19.2	23.6	3000.
1	12	55	45	0.064	0.0	0.0	0.6	******	19.4	23.6	3000.
1	12	56	0	0.064	0.0	0.0	0.6	******	19.3	23.5	3000.
1	12	56	15	0.063	0.0	0.0	0.6	******	19.0	23.3	3000.
1	12	56	30	0.062	0.0	0.0	0.7	******	18.8	23.2	3000.
1	12	56	45	0.063	0.0	0.0	0.7	******	18.6	23.5	3000.
1	12	57	0	0.063	0.0	0.0	0.7	******	18.6	23.4	3000.
1	12	57	15	0.063	0.0	0.0	0.7	******	18.7	23.3	3000.
1	12	57	30	0.063	0.0	0.0	0.7	******	18.7	23.5	3000.
1	12	57	45	0.064	0.0	0.0	0.5	******	18.7	23.6	3000.
1	12	58	0	0.065	0.0	0.0	0.7	******	18.5	23.7	3000.
1	12	58	15	0.066	0.0	0.0	0.6	******	18.5	23.7	3000.
1	12	58	30	0.067	0.0	0.0	0.6	******	18.6	24.0	2900.
1	12	58	45	0.068	0.0	0.0	0.7	******	18.7	24.0	2800.
1	12	59	0	0.068	0.0	0.0	0.6	******	18.9	24.3	2700.
1	12	59	15	0.068	0.0	0.0	0.7	******	19.2	24.3	2600.
1	12	59	30	0.066	0.0	0.0	0.5	******	19.1	24.3	2500.
1	12	59	45	0.065	0.0	0.0	0.7	******	18.9	24.3	2500.
1	13	0	0	0.065	0.0	0.0	0.6	******	18.8	24.5	2500.
1	13	0	15	0.064	0.0	0.0	0.5	******	18.4	24.7	2500.
1	13	0	30	0.063	0.0	0.0	0.6	******	18.2	24.7	2500.
1	13	0	45	0.062	0.0	0.0	0.6	******	18.3	24.6	2500.
1	13	1	0	0.062	0.0	0.0	0.6	******	18.7	24.6	2500.
1	13	1	15	0.061	0.0	0.0	0.5	******	18.8	24.7	2500.
1	13	1	30	0.062	0.0	0.0	0.5	******	18.6	24.9	2500.
1	13	1	45	0.061	0.0	0.0	0.7	******	18.6	24.8	2500.
1	13	2	0	0.061	0.0	0.0	0.5	******	18.7	24.9	2500.

TULSA FLIGHT NUMBER 20 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
1	13	2	15	0.062	0.0	0.0	0.7	******	18.9	24.9	2500.
1	13	2	30	0.061	0.0	0.0	0.5	******	18.9	24.9	2500.
1	13	2	45	0.061	0.0	0.0	0.5	******	18.9	25.1	2500.
1	13	3	0	0.062	0.0	0.0	0.8	******	18.8	25.1	2500.
1	13	3	15	0.061	0.0	0.0	0.8	******	18.7	25.2	2500.
1	13	3	30	0.062	0.0	0.0	0.6	******	18.6	25.2	2500.
1	13	3	45	0.063	0.0	0.0	0.7	******	18.4	25.2	2500.
1	13	4	0	0.063	0.0	0.0	0.7	******	18.4	25.1	2500.
1	13	4	15	0.063	0.0	0.0	0.5	******	18.4	25.3	2500.
2	13	4	30	0.063	0.0	0.0	0.6	******	18.3	25.1	2500.
2	13	4	45	0.063	0.0	0.0	0.7	******	18.3	25.2	2500.
2	13	5	0	0.064	0.0	0.0	0.5	******	18.3	25.3	2500.
2	13	5	15	0.063	0.0	0.0	0.6	******	18.3	25.2	2500.
2	13	5	30	0.063	0.0	0.0	0.6	******	18.6	25.5	2500.
2	13	5	45	0.062	0.0	0.0	0.7	******	18.8	25.2	2500.
2	13	6	0	0.063	0.0	0.0	0.7	******	18.9	25.5	2500.
2	13	6	15	0.063	0.0	0.0	0.5	******	18.8	25.5	2500.
2	13	6	30	0.063	0.0	0.0	0.6	******	18.7	25.4	2500.
2	13	6	45	0.063	0.0	0.0	0.6	******	18.4	25.3	2500.
2	13	7	0	0.064	0.0	0.0	0.6	******	18.2	25.5	2500.
2	13	7	15	0.064	0.0	0.0	0.5	******	18.1	25.3	2500.
3	13	7	30	0.064	0.0	0.0	0.6	******	18.0	25.4	2500.
3	13	7	45	0.064	0.0	0.0	0.7	******	18.0	25.5	2500.
3	13	8	0	0.062	0.0	0.0	0.7	******	18.2	25.4	2500.
3	13	8	15	0.062	0.0	0.0	0.7	******	18.6	25.4	2500.
3	13	8	30	0.063	0.0	0.0	0.7	******	18.7	25.5	2500.
3	13	8	45	0.062	0.0	0.0	0.5	******	18.7	25.4	2500.
3	13	9	0	0.062	0.0	0.0	0.7	******	18.6	25.4	2500.
3	13	9	15	0.061	0.0	0.0	0.5	******	18.3	25.4	2500.
3	13	9	30	0.061	0.0	0.0	0.7	******	18.0	25.2	2500.
3	13	9	45	0.061	0.0	0.0	0.5	******	17.9	25.2	2500.
3	13	10	0	0.062	0.0	0.0	0.6	******	17.9	25.3	2500.
3	13	10	15	0.062	0.0	0.0	0.6	******	18.1	25.5	2500.
3	13	10	30	0.062	0.0	0.0	0.6	******	18.6	25.2	2500.
3	13	10	45	0.063	0.0	0.0	0.6	******	18.8	25.4	2500.
3	13	11	0	0.063	0.0	0.0	0.7	******	18.8	25.1	2500.
3	13	11	15	0.064	0.0	0.0	0.6	******	18.7	25.2	2500.
3	13	11	30	0.065	0.0	0.0	0.6	******	18.8	25.2	2500.
3	13	11	45	0.065	0.0	0.0	0.7	******	18.9	25.2	2500.
3	13	12	0	0.064	0.0	0.0	0.6	******	19.0	25.3	2500.
3	13	12	15	0.066	0.0	0.0	0.6	******	19.0	25.2	2500.
3	13	12	30	0.066	0.0	0.0	0.6	******	18.9	25.2	2500.
3	13	12	45	0.065	0.0	0.0	0.6	******	18.7	25.2	2500.
3	13	13	0	0.064	0.0	0.0	0.7	******	18.7	25.2	2500.
3	13	13	15	0.064	0.0	0.0	0.6	******	18.8	25.2	2500.
3	13	13	30	0.063	0.0	0.0	0.6	******	19.0	25.1	2500.
3	13	13	45	0.063	0.0	0.0	0.6	******	19.3	25.1	2500.
3	13	14	0	0.062	0.0	0.0	0.8	******	19.4	25.0	2500.
3	13	14	15	0.063	0.0	0.0	0.6	******	19.4	25.1	2500.
3	13	14	30	0.061	0.0	0.0	0.5	******	19.4	25.1	2500.

TULSA FLIGHT NUMBER 20 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
3	13	14	45	0.061	0.0	0.0	0.5	******	19.4	25.1	2500.
3	13	15	0	0.062	0.0	0.0	0.5	******	19.4	24.8	2500.
3	13	15	15	0.062	0.0	0.0	0.6	******	19.4	25.0	2500.
3	13	15	30	0.062	0.0	0.0	0.6	******	19.6	24.9	2500.
3	13	15	45	0.062	0.0	0.0	0.6	******	19.6	24.7	2500.
3	13	16	0	0.062	0.0	0.0	0.7	******	19.4	24.6	2500.
3	13	16	15	0.063	0.0	0.0	0.6	******	19.1	24.4	2500.
3	13	16	30	0.063	0.0	0.0	0.6	******	19.0	24.8	2500.
3	13	16	45	0.065	0.0	0.0	0.7	******	19.1	24.8	2500.
3	13	17	0	0.069	0.0	0.0	0.6	******	19.3	24.6	2500.
3	13	17	15	0.069	0.0	0.0	0.5	******	19.7	24.8	2500.
3	13	17	30	0.071	0.0	0.0	0.6	******	19.7	24.8	2500.
3	13	17	45	0.068	0.0	0.0	0.7	******	19.6	24.8	2500.
3	13	18	0	0.067	0.0	0.0	0.4	******	19.3	24.7	2500.
3	13	18	15	0.065	0.0	0.0	0.6	******	19.1	24.7	2500.
3	13	18	30	0.066	0.0	0.0	0.6	******	19.3	24.7	2500.
3	13	18	45	0.066	0.0	0.0	0.5	******	19.5	24.8	2500.
3	13	19	0	0.065	0.0	0.0	0.4	******	19.5	24.8	2500.
3	13	19	15	0.065	0.0	0.0	0.5	******	19.5	24.6	2500.
3	13	19	30	0.068	0.0	0.0	0.4	******	19.2	24.7	2500.
3	13	19	45	0.067	0.0	0.0	0.5	******	18.9	24.8	2500.
3	13	20	0	0.066	0.0	0.0	0.6	******	18.8	24.6	2500.
3	13	20	15	0.065	0.0	0.0	0.6	******	19.1	24.7	2500.
3	13	20	30	0.065	0.0	0.0	0.5	******	19.1	24.7	2500.
3	13	20	45	0.064	0.0	0.0	0.5	******	19.3	24.6	2500.
3	13	21	0	0.064	0.0	0.0	0.6	******	19.5	24.6	2500.
3	13	21	15	0.063	0.0	0.0	0.7	******	19.5	24.6	2500.
3	13	21	30	0.061	0.0	0.0	0.6	******	19.4	24.8	2500.
3	13	21	45	0.062	0.0	0.0	0.8	******	19.3	24.6	2500.
3	13	22	0	0.061	0.0	0.0	0.8	******	19.1	24.5	2500.
3	13	22	15	0.061	0.0	0.0	0.7	******	18.9	24.4	2500.
3	13	22	30	0.060	0.0	0.0	0.5	******	18.7	24.6	2500.
3	13	22	45	0.060	0.0	0.0	0.5	******	18.7	24.4	2500.
3	13	23	0	0.060	0.0	0.0	0.6	******	18.9	24.3	2500.
4	13	23	15	0.059	0.0	0.0	0.7	******	19.1	24.4	2500.
4	13	23	30	0.059	0.0	0.0	0.5	******	19.3	24.3	2500.
4	13	23	45	0.059	0.0	0.0	0.6	******	19.3	24.5	2500.
4	13	24	0	0.059	0.0	0.0	0.5	******	19.3	24.3	2500.
4	13	24	15	0.059	0.0	0.0	0.6	******	19.2	24.3	2500.
4	13	24	30	0.059	0.0	0.0	0.7	******	19.1	24.4	2500.
4	13	24	45	0.060	0.0	0.0	0.7	******	18.9	24.4	2500.
5	13	25	0	0.060	0.0	0.0	0.8	******	18.7	24.3	2500.
5	13	25	15	0.060	0.0	0.0	0.7	******	18.6	24.3	2500.
5	13	25	30	0.062	0.0	0.0	0.6	******	18.7	24.3	2500.
5	13	25	45	0.062	0.0	0.0	0.6	******	18.8	24.5	2500.
5	13	26	0	0.062	0.0	0.0	0.7	******	18.9	24.3	2500.
5	13	26	15	0.063	0.0	0.0	0.6	******	19.0	24.3	2500.
5	13	26	30	0.064	0.0	0.0	0.6	******	19.1	24.3	2500.
5	13	26	45	0.065	0.0	0.0	0.7	******	19.2	24.2	2500.
5	13	27	0	0.064	0.0	0.0	0.6	******	19.1	24.3	2500.

TULSA FLIGHT NUMBER 20 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
5	13	27	15	0.064	0.0	0.0	0.7	******	19.0	24.3	2500.
5	13	27	30	0.061	0.0	0.0	0.6	******	18.9	24.3	2500.
5	13	27	45	0.063	0.0	0.0	0.6	******	19.0	24.4	2500.
5	13	28	0	0.063	0.0	0.0	0.6	******	18.8	24.3	2500.
5	13	28	15	0.066	0.0	0.0	0.7	******	18.8	24.3	2500.
5	13	28	30	0.068	0.0	0.0	0.7	******	18.8	24.3	2500.
5	13	28	45	0.068	0.0	0.0	0.6	******	18.9	24.3	2500.
5	13	29	0	0.069	0.0	0.0	0.6	******	19.0	24.1	2500.
5	13	29	15	0.070	0.0	0.0	0.8	******	19.2	24.4	2500.
5	13	29	30	0.071	0.0	0.0	0.6	******	19.2	24.4	2500.
5	13	29	45	0.072	0.0	0.0	0.5	******	19.3	24.5	2500.
5	13	30	0	0.071	0.0	0.0	0.6	******	19.5	24.3	2500.
5	13	30	15	0.071	0.0	0.0	0.7	******	19.6	24.4	2500.
5	13	30	30	0.068	0.0	0.0	0.8	******	19.6	24.5	2500.
5	13	30	45	0.068	0.0	0.0	0.6	******	19.5	24.5	2500.
5	13	31	0	0.069	0.0	0.0	0.7	******	19.4	24.5	2500.
5	13	31	15	0.070	0.0	0.0	0.7	******	19.3	24.8	2500.
5	13	31	30	0.071	0.0	0.0	0.8	******	19.5	24.6	2500.
5	13	31	45	0.072	0.0	0.0	0.6	******	19.6	24.8	2500.
5	13	32	0	0.073	0.0	0.0	0.7	******	19.6	24.6	2500.
5	13	32	15	0.072	0.0	0.0	0.6	******	19.4	24.8	2500.
5	13	32	30	0.068	0.0	0.0	0.7	******	19.1	24.7	2500.
5	13	32	45	0.066	0.0	0.0	0.6	******	19.1	24.7	2500.
5	13	33	0	0.064	0.0	0.0	0.7	******	19.4	24.6	2500.
5	13	33	15	0.064	0.0	0.0	0.6	******	19.6	24.7	2500.
5	13	33	30	0.063	0.0	0.0	0.7	******	19.6	24.9	2500.
5	13	33	45	0.063	0.0	0.0	0.6	******	19.7	24.8	2500.
5	13	34	0	0.063	0.0	0.0	0.8	******	19.6	24.7	2500.
5	13	34	15	0.062	0.0	0.0	0.6	******	19.5	24.8	2500.
5	13	34	30	0.063	0.0	0.0	0.5	******	19.6	24.9	2500.
5	13	34	45	0.063	0.0	0.0	0.7	******	19.7	24.7	2500.
5	13	35	0	0.062	0.0	0.0	0.7	******	19.6	24.7	2500.
5	13	35	15	0.063	0.0	0.0	0.5	******	19.3	24.8	2500.
5	13	35	30	0.062	0.0	0.0	0.7	******	19.0	24.9	2500.
5	13	35	45	0.063	0.0	0.0	0.6	******	18.8	25.0	2500.
5	13	36	0	0.064	0.0	0.0	0.7	******	19.0	24.9	2500.
5	13	36	15	0.065	0.0	0.0	0.6	******	19.3	24.9	2500.
5	13	36	30	0.066	0.0	0.0	0.6	******	19.4	25.0	2500.
5	13	36	45	0.065	0.0	0.0	0.7	******	19.3	25.1	2500.
5	13	37	0	0.066	0.0	0.0	0.6	******	19.2	25.1	2500.
5	13	37	15	0.066	0.0	0.0	0.7	******	19.2	25.0	2500.
5	13	37	30	0.066	0.0	0.0	0.6	******	19.2	25.2	2500.
5	13	37	45	0.066	0.0	0.0	0.6	******	19.2	25.2	2500.
5	13	38	0	0.066	0.0	0.0	0.6	******	18.9	25.1	2500.
5	13	38	15	0.065	0.0	0.0	0.7	******	18.4	25.3	2500.
5	13	38	30	0.064	0.0	0.0	0.5	******	18.4	24.7	2500.
5	13	38	45	0.063	0.0	0.0	0.6	******	18.6	25.3	2500.
5	13	39	0	0.062	0.0	0.0	0.7	******	18.7	25.3	2500.
5	13	39	15	0.062	0.0	0.0	0.6	******	18.7	25.1	2500.
5	13	39	30	0.063	0.0	0.0	0.6	******	18.7	25.5	2500.

TULSA FLIGHT NUMBER 20 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
6	13	39	45	0.063	0.0	0.0	0.7	******	18.9	25.4	2500.
6	13	40	0	0.062	0.0	0.0	0.6	******	19.0	25.5	2500.
6	13	40	15	0.062	0.0	0.0	0.6	******	18.8	25.3	2500.
6	13	40	30	0.062	0.0	0.0	0.7	******	18.6	25.5	2500.
6	13	40	45	0.062	0.0	0.0	0.5	******	18.7	25.5	2500.
6	13	41	0	0.062	0.0	0.0	0.6	******	18.9	25.5	2500.
6	13	41	15	0.063	0.0	0.0	0.6	******	18.8	25.5	2500.
7	13	41	30	0.062	0.0	0.0	0.7	******	18.6	25.5	2500.
7	13	41	45	0.062	0.0	0.0	0.5	******	18.4	25.5	2500.
7	13	42	0	0.062	0.0	0.0	0.7	******	18.2	25.4	2500.
7	13	42	15	0.063	0.0	0.0	0.5	******	18.2	25.3	2500.
7	13	42	30	0.063	0.0	0.0	0.8	******	18.3	25.5	2500.
7	13	42	45	0.063	0.0	0.0	0.6	******	18.4	25.5	2500.
7	13	43	0	0.064	0.0	0.0	0.5	******	18.5	25.2	2500.
7	13	43	15	0.064	0.0	0.0	0.7	******	18.5	25.6	2500.
7	13	43	30	0.064	0.0	0.0	0.6	******	18.6	25.6	2500.
7	13	43	45	0.065	0.0	0.0	0.5	******	18.6	25.2	2500.
7	13	44	0	0.065	0.0	0.0	0.6	******	18.6	25.3	2500.
7	13	44	15	0.065	0.0	0.0	0.5	******	18.6	25.4	2500.
7	13	44	30	0.065	0.0	0.0	0.6	******	18.7	25.3	2500.
7	13	44	45	0.065	0.0	0.0	0.6	******	18.9	25.4	2500.
7	13	45	0	0.065	0.0	0.0	0.5	******	19.0	25.5	2500.
7	13	45	15	0.065	0.0	0.0	0.6	******	19.1	25.4	2500.
7	13	45	30	0.064	0.0	0.0	0.6	******	19.0	25.4	2500.
7	13	45	45	0.063	0.0	0.0	0.5	******	19.1	25.4	2500.
7	13	46	0	0.063	0.0	0.0	0.5	******	19.3	25.3	2500.
7	13	46	15	0.063	0.0	0.0	0.6	******	19.4	25.2	2500.
7	13	46	30	0.063	0.0	0.0	0.6	******	19.5	25.4	2500.
7	13	46	45	0.062	0.0	0.0	0.6	******	19.5	25.3	2500.
7	13	47	0	0.063	0.0	0.0	0.6	******	19.5	25.1	2500.
7	13	47	15	0.062	0.0	0.0	0.6	******	19.7	25.5	2500.
7	13	47	30	0.062	0.0	0.0	0.6	******	19.6	25.5	2500.
7	13	47	45	0.062	0.0	0.0	0.6	******	19.4	25.3	2500.
7	13	48	0	0.063	0.0	0.0	0.5	******	19.3	25.3	2500.
7	13	48	15	0.062	0.0	0.0	0.7	******	19.3	25.3	2500.
7	13	48	30	0.062	0.0	0.0	0.6	******	19.4	25.2	2500.
7	13	48	45	0.063	0.0	0.0	0.6	******	19.6	25.3	2500.
7	13	49	0	0.064	0.0	0.0	0.6	******	19.7	25.2	2500.
7	13	49	15	0.067	0.0	0.0	0.7	******	19.7	25.2	2500.
7	13	49	30	0.068	0.0	0.0	0.6	******	19.6	25.3	2500.
7	13	49	45	0.072	0.0	0.0	0.6	******	19.5	25.3	2500.
7	13	50	0	0.073	0.0	0.0	0.6	******	19.2	25.1	2500.
7	13	50	15	0.072	0.0	0.0	0.7	******	19.1	25.0	2500.
7	13	50	30	0.071	0.0	0.0	0.7	******	19.4	25.0	2500.
7	13	50	45	0.070	0.0	0.0	0.7	******	19.6	24.9	2500.
7	13	51	0	0.071	0.0	0.0	0.6	******	19.5	25.0	2500.
7	13	51	15	0.070	0.0	0.0	0.6	******	19.4	25.0	2500.
7	13	51	30	0.071	0.0	0.0	0.7	******	19.2	25.1	2500.
7	13	51	45	0.073	0.0	0.0	0.5	******	19.2	24.7	2500.
7	13	52	0	0.075	0.0	0.0	0.6	******	19.2	25.0	2500.

TULSA FLIGHT NUMBER 20 DATE: 9-17

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
	7	13	52	15	0.072	0.0	0.0	0.6	******	19.2	25.0	2500.
	7	13	52	30	0.070	0.0	0.0	0.5	******	19.2	24.7	2500.
	7	13	52	45	0.069	0.0	0.0	0.5	******	19.3	25.0	2500.
	7	13	53	0	0.069	0.0	0.0	0.6	******	19.3	25.0	2500.
	7	13	53	15	0.067	0.0	0.0	0.7	******	19.3	24.9	2500.
	7	13	53	30	0.067	0.0	0.0	0.7	******	19.2	25.0	2500.
	8	13	53	45	0.066	0.0	0.0	0.6	******	19.2	24.7	2500.
	8	13	54	0	0.067	0.0	0.0	0.6	******	19.2	24.8	2500.
	8	13	54	15	0.066	0.0	0.0	0.7	******	19.3	24.9	2500.
	8	13	54	30	0.067	0.0	0.0	0.7	******	19.3	24.9	2500.
	8	13	54	45	0.067	0.0	0.0	0.8	******	19.4	24.8	2500.
	8	13	55	0	0.067	0.0	0.0	0.6	******	19.7	24.9	2500.
	8	13	55	15	0.068	0.0	0.0	0.6	******	19.8	24.9	2500.
	8	13	55	30	0.069	0.0	0.0	0.5	******	19.6	24.7	2500.
	8	13	55	45	0.069	0.0	0.0	0.5	******	19.5	24.6	2500.
	8	13	56	0	0.071	0.0	0.0	0.5	******	19.6	24.8	2500.
	8	13	56	15	0.072	0.0	0.0	0.7	******	19.7	24.8	2500.
	8	13	56	30	0.071	0.0	0.0	0.7	******	19.8	24.9	2500.
	8	13	56	45	0.072	0.0	0.0	0.8	******	19.7	24.9	2500.
	8	13	57	0	0.072	0.0	0.0	0.8	******	19.6	24.8	2500.
	9	13	57	15	0.072	0.0	0.0	0.9	******	19.4	24.6	2500.
	9	13	57	30	0.072	0.0	0.0	0.6	******	19.4	24.6	2500.
	9	13	57	45	0.071	0.0	0.0	0.8	******	19.5	24.7	2500.
	9	13	58	0	0.071	0.0	0.0	0.8	******	19.5	24.8	2500.
	9	13	58	15	0.070	0.0	0.0	0.6	******	19.5	24.6	2500.
	9	13	58	30	0.068	0.0	0.0	0.6	******	19.3	24.7	2500.
	9	13	58	45	0.069	0.0	0.0	0.7	******	19.0	24.7	2500.
	9	13	59	0	0.069	0.0	0.0	0.5	******	18.8	24.6	2500.
	9	13	59	15	0.067	0.0	0.0	0.5	******	18.7	24.7	2500.
	9	13	59	30	0.065	0.0	0.0	0.7	******	19.0	24.7	2500.
	9	13	59	45	0.063	0.0	0.0	0.7	******	19.4	24.7	2500.
	9	14	0	0	0.063	0.0	0.0	0.7	******	19.7	24.7	2500.
S	1	14	6	0	0.068	0.0	0.0	0.7	******	20.1	26.7	1500.
S	1	14	6	15	0.070	0.0	0.0	0.7	******	20.1	26.6	1650.
S	1	14	6	30	0.071	0.0	0.0	0.6	******	20.0	26.9	1800.
S	1	14	6	45	0.071	0.0	0.0	0.8	******	19.8	27.1	1900.
S	1	14	7	0	0.072	0.0	0.0	0.7	******	19.5	27.0	2000.
S	1	14	7	15	0.072	0.0	0.0	0.7	******	19.5	26.9	2250.
S	1	14	7	30	0.073	0.0	0.0	0.7	******	19.4	26.6	2500.
S	1	14	7	45	0.070	0.0	0.0	0.6	******	19.1	26.8	2600.
S	1	14	8	0	0.069	0.0	0.0	0.7	******	19.0	26.5	2700.
S	1	14	8	15	0.069	0.0	0.0	0.7	******	19.1	26.7	2800.
S	1	14	8	30	0.068	0.0	0.0	0.7	******	19.2	26.1	2900.
S	1	14	8	45	0.068	0.0	0.0	0.7	******	19.2	26.1	3000.
S	1	14	9	0	0.069	0.0	0.0	0.7	******	19.1	25.9	3150.
S	1	14	9	15	0.070	0.0	0.001	0.7	******	19.0	25.4	3300.
S	1	14	9	30	0.071	0.0	0.0	0.7	******	18.7	25.3	3450.
S	1	14	9	45	0.071	0.0	0.0	0.6	******	18.2	24.9	3600.
S	1	14	10	0	0.071	0.0	0.0	0.8	******	17.3	24.5	3750.
S	1	14	10	15	0.069	0.0	0.0	0.5	******	15.7	24.3	3900.

TULSA FLIGHT NUMBER 20 DATE: 9-17

	LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S	1	14	10	30	0.064	0.0	0.001	0.7	******	14.2	24.1	4000.
S	1	14	10	45	0.062	0.0	0.001	0.8	******	13.2	23.7	4100.
S	1	14	11	0	0.059	0.0	0.0	0.5	******	12.9	23.8	4250.
S	1	14	11	15	0.060	0.0	0.0	0.5	******	12.5	23.6	4350.
S	1	14	11	30	0.058	0.0	0.0	0.6	******	12.3	23.6	4450.
S	1	14	11	45	0.057	0.0	0.0	0.6	******	12.1	23.7	4600.
S	1	14	12	0	0.057	0.0	0.0	0.6	******	11.8	23.0	4700.
S	1	14	12	15	0.057	0.0	0.0	0.5	******	11.2	22.9	4800.
S	1	14	12	30	0.056	0.0	0.0	0.7	******	10.8	22.8	4900.
S	1	14	12	45	0.057	0.0	0.0	0.6	******	10.8	22.7	5000.
S	1	14	13	0	0.056	0.0	0.0	0.5	******	10.9	22.3	5100.
S	1	14	13	15	0.056	0.0	0.0	0.5	******	10.9	22.4	5200.
S	1	14	13	30	0.056	0.0	0.0	0.6	******	11.0	22.2	5350.
S	1	14	13	45	0.056	0.0	0.0	0.5	******	11.0	21.9	5450.
S	1	14	14	0	0.055	0.0	0.001	0.5	******	10.8	22.0	5550.
S	1	14	14	15	0.055	0.0	0.0	0.5	******	10.7	21.5	5650.
S	1	14	14	30	0.056	0.0	0.0	0.6	******	10.6	21.6	5800.
S	1	14	14	45	0.056	0.0	0.0	0.5	******	10.8	21.3	5900.
S	1	14	15	0	0.055	0.0	0.0	0.6	******	11.0	21.1	6000.
S	1	14	15	15	0.053	0.0	0.0	0.5	******	11.1	20.8	6100.
S	1	14	15	30	0.054	0.0	0.0	0.6	******	11.0	20.7	6200.
S	1	14	15	45	0.054	0.0	0.0	0.6	******	10.8	20.7	6300.
S	1	14	16	0	0.053	0.0	0.0	0.6	******	10.5	20.2	6400.
S	1	14	16	15	0.052	0.0	0.0	0.6	******	9.9	19.9	6500.
S	1	14	16	30	0.053	0.0	0.0	0.6	******	8.8	19.5	6600.
S	1	14	16	45	0.054	0.0	0.0	0.5	******	7.0	19.8	6700.
S	1	14	17	0	0.055	0.0	0.0	0.6	******	5.0	19.3	6800.
S	1	14	17	15	0.055	0.0	0.0	0.4	******	4.0	19.2	6900.
S	1	14	17	30	0.054	0.0	0.0	0.6	******	3.7	18.9	7000.
S	1	14	17	45	0.054	0.0	0.0	0.5	******	3.6	18.7	7100.
S	1	14	18	0	0.054	0.0	0.0	0.5	******	3.3	18.6	7250.
S	1	14	18	15	0.055	0.0	0.0	0.6	******	3.1	18.2	7350.
S	1	14	18	30	0.055	0.0	0.0	0.5	******	3.3	18.2	7500.
S	1	14	18	45	0.054	0.0	0.0	0.5	******	3.7	17.9	7600.
S	1	14	19	0	0.053	0.0	0.0	0.7	******	4.3	17.8	7800.
S	1	14	19	15	0.051	0.0	0.0	0.6	******	4.8	17.6	8000.
S	1	14	19	30	0.050	0.0	0.0	0.6	******	5.3	17.5	8150.
S	1	14	19	45	0.049	0.0	0.0	0.5	******	5.4	17.2	8300.
S	1	14	20	0	0.047	0.0	0.0	0.5	******	5.4	16.9	8450.
S	1	14	20	15	0.048	0.0	0.0	0.5	******	5.1	16.6	8600.
S	1	14	20	30	0.046	0.0	0.0	0.4	******	4.9	16.3	8750.
S	1	14	20	45	0.046	0.0	0.0	0.5	******	4.5	16.1	8900.
S	1	14	21	0	0.045	0.0	0.0	0.7	******	4.4	16.1	9000.
S	1	14	21	15	0.045	0.0	0.0	0.7	******	4.2	15.8	9100.
S	1	14	21	30	0.045	0.0	0.0	0.6	******	4.0	15.8	9200.
S	1	14	21	45	0.045	0.0	0.0	0.6	******	3.9	15.5	9300.
S	1	14	22	0	0.045	0.0	0.0	0.5	******	3.9	15.3	9400.
S	1	14	22	15	0.046	0.0	0.0	0.5	******	3.8	15.3	9500.
S	1	14	22	30	0.046	0.0	0.0	0.6	******	3.8	15.1	9600.
S	1	14	22	45	0.046	0.0	0.0	0.5	******	3.8	14.4	9700.

TULSA FLIGHT NUMBER 20 DATE: 9-17

LEG	HR	MIN	SEC	OZONE PPM	NO PPM	NOX PPM	B-SCAT .0001/M	CN 1000/CC	DEW PT °C	TEMP °C	ALT FEET
S 1	14	23	0	0.047	0.0	0.0	0.7	******	3.9	14.6	9800.
S 1	14	23	15	0.046	0.0	0.0	0.7	******	3.6	14.1	9900.
S 1	14	23	30	0.046	0.0	0.0	0.6	******	3.2	14.1	10000.
S 1	14	23	45	0.046	0.0	0.0	0.5	******	2.7	13.8	10100.
S 1	14	24	0	0.046	0.0	0.0	0.6	******	2.3	13.5	10250.
S 1	14	24	15	0.046	0.0	0.0	0.5	******	1.8	13.1	10350.
S 1	14	24	30	0.046	0.0	0.0	0.6	******	1.6	12.8	10500.
S 1	14	24	45	0.046	0.0	0.0	0.5	******	1.6	12.4	10650.
S 1	14	25	0	0.047	0.0	0.0	0.5	******	1.3	12.4	10750.
S 1	14	25	15	0.047	0.0	0.0	0.7	******	0.9	11.9	10850.
S 1	14	25	30	0.046	0.0	0.0	0.7	******	0.5	11.8	11000.
S 1	14	25	45	0.046	0.0	0.0	0.6	******	0.3	11.5	11100.
S 1	14	26	0	0.045	0.0	0.0	0.5	******	0.3	11.2	11250.
S 1	14	26	15	0.044	0.0	0.0	0.5	******	0.4	10.7	11400.
S 1	14	26	30	0.045	0.0	0.0	0.6	******	0.4	10.6	11550.
S 1	14	26	45	0.046	0.0	0.0	0.6	******	0.1	10.1	11700.
S 1	14	27	0	0.045	0.0	0.001	0.7	******	-0.3	9.9	11850.
S 1	14	27	15	0.045	0.0	0.002	0.6	******	-0.6	9.6	12000.

SECTION 4.16

WIND DIRECTION AND SPEED DATA FROM PIBAL RELEASES

Preceding page blank

Table 4.9. PIBAL data taken in Tulsa, Oklahoma, by the National Weather Service. Wind direction: degrees of compass; Wind speed: miles per hour

Date 1977	Release Time (CST)	Altitude Above Surface, ft.												
		Surface WD	1000 WD	2000 WD	3000 WD	4000 WD	5000 WD	6000 WD	7000 WD	8000 WD	9000 WD	10000 WD	11000 WD	12000 WD
8/26	0535	175	200	210	210	215	225	225	230	230	220	210		
26	0905	180	180	195	205	210	210	200	210	210	200			
31	0535	180	180	190	190	190	210	220	230	230	210	210	220	240
31	0930	195	205	200	200	200	200	200	190	180	180	190		
9/02	0540	120	200	210	200	200	206	220	240					
02	0935	190	210	205	200	185	170	165	150	055	075	095	105	
03	0535	260	180	190	185	180	170	190	130					
08	0535	No Data												
08	0915	190	190	195	190	195	195	185						
11	0530	160	175	200	210	215	230	245	250	260	260			
11	0915	No Data												
16	0530	160	240	230	220	220	230	240	240					
16	0915	No Data												
17	0530	160	180	195	200	210								
17	1100	193	190	205	205	210	225	225						
18	0530	190	195	215	235	245	240	245	250					
18	0915	No Data												
		WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS	WS
8/26	0535	12.7	29.9	47.2	43.7	32.2	26.5	20.7	16.1	15.0	13.8	12.7		
26	0905	18.4	21.9	21.9	32.2	31.1	27.6	26.5	27.6	20.7	15.0			
31	0535	11.5	39.1	40.3	34.5	24.2	18.4	12.7	15.0	15.0	15.0			
31	0930	20.7	26.5	18.4	20.7	35.7	29.9	25.3	20.7	15.0	13.8	13.8		
9/02	0540	4.6	15.0	16.1	12.7	11.5	12.7	12.7	13.8					
02	0935	8.1	4.6	6.9	10.4	10.4	3.5	4.6	10.4	9.2	9.2			
03	0535	3.5	12.7	8.1	8.1	10.4	8.1	5.8	2.3					
08	0535	No Data												
08	0915	12.7	18.4	18.4	16.1	9.2	9.2	9.2						
11	0530	9.2	19.6	34.5	39.1	34.5	21.9	25.3	26.5	24.2	25.3			
11	0915	No Data												
16	0530	10.4	13.8	28.8	39.1	42.6	34.5	40.3	34.5					
16	0915	No Data												
17	0530	11.5	18.4	59.8	61.0	48.3								
17	1100	20.7	21.9	33.4	33.4	39.1	28.8	20.7						
18	0530	11.5	15.0	32.2	44.9	43.7	34.5	29.9	23.0					
18	0915	No Data												